EXHIBIT 28

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August 16, 2018

Dr. Ahmed Tewfik
Cockrell Family Regents Chair in Engineering
Chairman, Department of Electrical and Computer Engineering
Cockrell School of Engineering
University of Texas, Austin

Re: Confidential letter of evaluation for Dr. Evdokia Nikolova

Dear Professor Tewfik:

I am happy to write a recommendation letter for Dr. Evdokia Nikolova, who is considered for promotion to the rank of Associate Professor with tenure at UT Austin.

I have known and followed Professor Nikolova's research since she was a postdoc fellow at MIT, where she also received her PhD degree. Over the years, we met in several conferences, when she visited UC Berkeley and when I visited UT Austin. I have not collaborated with her on a research project or proposal.

Dr. Pachamanova has 4 refereed journal papers, two of which appeared or accepted for publication in top journals in the field of Operations Research. They are *Operations Research* and *Mathematics of Operations Research*. Dr. Nikolova has 30 conference papers, which clearly shows that she is a quite active researcher.

Evdokia has been a leader in algorithmic research in risk averse discrete optimization problems, in particular risk averse routing and equilibrium in networks. These are challenging problems, not adequately addressed by the research community. She has strong, original theoretical contributions. She has raised many new questions and put forth conjectures that have raised the interest in the research community.

Dr. Nikolova has been quite successful in securing research funding. She has been either a PI or co-PI of five research grants, including a very competitive NSF Career Award. The variety of projects, including the applied ones in collaboration with different colleagues, indicates Dr. Nikolova's ability to engage in collaborative research. She is also valuable mentor to graduate students. She supervises/has supervised 7 PhD students and 2 postdoctoral fellows.

Professor Nikolova is a well-respected member of the academic community. I have relied on her expertise when she served as a referee for several manuscripts. She has co-organized a successful research workshop on real-time decision making at the Simons Institute at UC Berkeley.

I am confident that she will continue to make strong contributions in the future. She has recently started to work on problems in power grids. The application of her theoretical and algorithmic expertise in this domain seems to be a promising growth area for her.

I am pleased to recommend Dr. Evdokia Nikolova's promotion to Associate Professor rank with tenure at UT Austin.

Sincerely yours,

Alper Atamtürk
Professor
IEOR, UC Berkeley

From: Alper ATAMTURK <atamturk@berkeley.edu>
Sent: Thursday, August 16, 2018 2:18 PM
To: Erengil, Jac <jac.erengil@utexas.edu>
Cc: Tewfik, Ahmed H <tewfik@austin.utexas.edu>
Subject: Re: UT Faculty Promotion Letter Overdue

Dear Prof. Tawfik,

I am sorry for the delay. Attached, please find my letter for Dr. Evdokia Nikolova.

Best regards,
Alper

Alper Atamturk, Professor

Industrial Engineering and Operations Research

University of California, Berkeley

Current research interests are in integer programming (conic, mixed, combinatorial), optimization under uncertainty with applications to power systems, portfolio/network design, logistics of production, distribution, transportation systems and treatment of cancer. He serves as a co-editor for Mathematical Programming A, area editor for Mathematical Programming C, and associate editor for Operations Research, Discrete Optimization, Journal of Risk, and Networks; and has in the past served on the editorial board of Management Science. Dr. Atamturk is a National Security Science & Engineering Faculty Fellow of the US Department of Defense.

Research

- Integer Optimization (Conic, Mixed, Combinatorial)

- Optimization under Uncertainty

- Power Systems

- Logistics of Production, Distribution, Transportation, Telecommunication Systems

- Portfolio/Network Design

- Treatments for Cancer

C

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Dear promotion committee:

It is my great pleasure to very strongly recommend the promotion of **Dr. Evdokia (Eddie) Nikolova** to the rank of Associate Professor with tenure in the Department of Electrical and Computer Engineering at the University of Texas at Austin. I apologize that I have to keep this letter somewhat short due to overwhelming other commitments, but this should not at all be considered to reflect badly on the candidate; I imagine this will be an easy case.

Simply put, Dr. Nikolova is one of the world's leading junior researchers working in the intersection of fields including operations research and theoretical computer science and ECE. She publishes in top conferences and journals, including some particularly high-profile venues recently.

I have known Dr. Nikolova for many years now from seeing her work and talking with her at scientific conferences. She and I also both participated in the UC Berkeley Simons Institute's program on Economics and Computation in the fall of 2015.

In my mind, Dr. Nikolova's most notable contributions and those that are most unique to her, in the sense that I'm not sure anyone else would have made them (but I am very glad that she did!), concern the introduction of uncertainty and risk aversion among users into certain theoretical models, especially routing games. She then proceeds to extend analyses that were done in less realistic (deterministic or risk-neutral) models to these extended models, which often requires a great deal of technical insight and produces surprising new results. This work has already had significant impact but I think it will have much more impact yet in the future.

Let me discuss a few of her papers in greater detail.

One of Dr. Nikolova's most notable contributions is her work on risk-averse selfish routing. There is a large body of literature on the selfish routing problem, where each agent chooses a path that minimizes her own latency, which may have the effect that the overall solution is actually worse from the perspective of global welfare of the agents. The standard models assume that latencies are deterministic or that agents care only about expected latency. Quick reflection reveals this to be unrealistic in many cases. For example, suppose I leave for work at 8:40am. I have a choice between a long quiet route that will take 18 minutes for sure, or a shorter busier route that takes 10 minutes 50% of the time and 25 minutes otherwise. Which will I prefer? The latter route has shorter expected latency (17.5 minutes), but I may well prefer the predictability of the former route, especially if I need to get to work by 9am. While it is easy to make the case for the importance of modeling such aspects, from a mathematical/technical perspective it creates all kinds of difficulties. Dr. Nikolova and her co-authors cut through these difficulties, analyzing in detail what they term the *price of risk aversion*, i.e., the worst-case loss to the system due to the combination of uncertainty and agent risk aversion. This

work (with Lianeas and Stier-Moses) appears in *Mathematics of Operations Research*, one of the top OR journals. It builds on Dr. Nikolova's earlier paper (with Stier-Moses) in *Operations Research*, another top OR journal, in which she characterizes equilibrium traffic and shows when such equilibria exist in this context.

In the routing games described above, the cost of traversing an edge is exogenously determined. But in some cases, this cost is the result of a strategic agent imposing a toll on users traversing the edge. This is the setting that Dr. Nikolova (together with Correa, Guzman, Lianeas, and Schroder) studies in a 2018 ACM EC paper. (Incidentally, this EC conference is the top conference for interdisciplinary work between economic theory and computer science. As you may be aware, conference proceedings are the main method of publication in computer science, and top conferences such as EC have rigorous and extremely competitive refereeing.) Thus, these toll-imposing agents should also be considered players in the game. Dr. Nikolova and her co-authors give an impressive result: while in general these games may have no equilibria, multiple equilibria, or highly inefficient equilibria, if it is the case that an authority can set caps on the tolls that are charged, then all these problems go away.

As I noted at the beginning of this letter, Dr. Nikolova has a set of topics in which she is uniquely expert and that fit her interests and disciplines extremely well. If she wants to expand beyond them, great, but I don't see this as necessary. I would encourage her to seek more leadership roles in the community post-tenure. To be clear, I don't think that there's a problem here so far at all – she has been serving on program committees and funding agency panels, and her recent organizational roles at the Simons Institute are a great starting point for taking further leadership roles. And it can be risky for pre-tenure faculty to take on certain leadership roles. But tenure should allow her to take on even more visible roles. As for teaching, you know more about her teaching record than I do, but from what I can see there doesn't seem to be any reason to be concerned there. (I'm not surprised, given that I know her to be a clear lecturer.)

In summary, again, I very strongly recommend Dr. Nikolova's promotion to Associate Professor with tenure, and that you do your best to keep her in this competitive market. Thank you for your service and for reading my letter.

Sincerely,

Vincent Conitzer

Vincent Conitzer
Kimberly J. Jenkins University Professor of New Technologies
Professor of Computer Science (primary), Professor of Economics, and Professor of Philosophy
Duke University

About the letter writer:[1] *Vincent Conitzer is the Kimberly J. Jenkins University Professor of New Technologies and Professor of Computer Science, Professor of Economics, and Professor of Philosophy at Duke University. He received Ph.D. (2006) and M.S. (2003) degrees in Computer Science from Carnegie Mellon University, and an A.B. (2001) degree in Applied Mathematics from Harvard University. His research focuses on computational aspects of microeconomics, in particular game theory, mechanism design, voting/social choice, and auctions. This work uses techniques from, and includes applications to, artificial intelligence and multiagent systems. Conitzer has received the Social Choice and Welfare Prize (2014), a Presidential Early Career Award for Scientists and Engineers (PECASE), the IJCAI Computers and Thought Award, an NSF CAREER award, the inaugural Victor Lesser dissertation*

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[1] This is helpful for some universities' procedures; please feel free to ignore it.

award, an honorable mention for the ACM dissertation award, and several awards for papers and service at the AAAI and AAMAS conferences. He has also been named a Guggenheim Fellow, a Kavli Fellow, a Bass Fellow, a Sloan Fellow, and one of AI's Ten to Watch. Conitzer and Preston McAfee were the founding Editors-in-Chief of the ACM Transactions on Economics and Computation (TEAC).

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Ashish Goel
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August 19, 2018

To,

Dr. Ahmed Tewfik
Cockrell Family Regents Chair in Engineering
Chairman, Department of Electrical and Computer Engineering

Dear Professor Tewfik,

It is a pleasure to write a letter of reference for Dr. Evdokia Nikolova as you are considering her for promotion and tenure. I think highly of her, but am severely time constrained so while my opinion is very positive, this letter will be brief.

You specifically asked for my opinion on five related issues.

1. *Do you know the candidate, and if so, for how long and under what circumstances?*

   I have known Professor Nikolova for over a decade, and her work for a little longer. She visited Stanford when she was still a PhD student, and we had a long conversation about her work on Pareto-optimal shortest paths. We have since kept in professional contact, primarily at conferences.

2. *What are the original, innovative, and/or important contributions that the candidate has made in his/her field of research? Have the candidates publications influenced the thinking of, or the methods used by, others in the field?*

   Professor Nikolova describes these in detail in her research statement, and her description is both accurate and impressive. I would like to offer a broader perspective on her work. When she graduated, she was working on hard-core algorithmic problems. I was particularly delighted to see her work on multi-objective shortest paths. She had the ability and the training to keep pushing in that direction, and would no doubt have had success. But she chose a somewhat different path, which has been productive from a research view point, and also impactful. She started to use her algorithmic background to model and solve real world problems in transportation networks. She brought her own taste and flavor to this research, in that her primary focus has been not on issues of computational efficiency (though her work speaks to that as well) but issues of risk and incentive. Her work is rooted both in a deep understanding of graph algorithms and game theory on the one hand, and a careful modeling of real-life network interactions on the other. Her work on toll pricing is considered quite

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influential in the EC community. And her new research direction regarding power grids is timely and well thought out.

Since our research areas have diverged somewhat, I still find her original thesis work on route planning under uncertainty and her work shortly thereafter on stochastic shortest paths to be the ones that had the largest influence on my own thinking. Her work introduced new techniques by going beyond the confines of polynomial time, and showing that the shortest path problem has interesting computational structure beyond this boundary.

3. *How would you assess the candidates development compared with cohorts in research-intensive universities?*

Professor Nikolova compares very well to the cohort of tenured Associate Professors in major research Universities. She provides academic leadership to her field, as evidenced by the high volume of her publications, and her service work is evident in the numerous committees she has served on.

4. *What is your perspective on the candidates promise for further professional growth and leadership?*

Professor Nikolova has a high potential for future professional growth and leadership. One sure sign of this is her mentor-ship of strong PhD students. I was very pleased to note that one of her students received a best student paper award for work co-authored with her at a competitive and prestigious conference.

5. *We would welcome any additional comments you might have. The more specific you can be in your comments, the more helpful your evaluation will be.*

This is a strong tenure case, and I very much hope this succeeds. Please don't hesitate to contact me for additional information.

Sincerely,

Ashish Goel.

Brief Bio: Ashish Goel is a Professor of Management Science and Engineering and (by courtesy) Computer Science at Stanford University, and a member of Stanford's Institute for Computational and Mathematical Engineering. He received his PhD in Computer Science from Stanford in 1999, and was an Assistant Professor of Computer Science at the University of Southern California from 1999 to 2002. His research interests lie in the design, analysis, and applications of algorithms; current application areas of interest include social networks, participatory democracy, Internet commerce, and large scale data processing. Professor Goel is a recipient of an Alfred P. Sloan faculty fellowship (2004-06), a Terman faculty fellowship from Stanford, an NSF Career Award (2002-07), and a Rajeev Motwani mentorship award (2010). He was a co-author on the paper that won the best paper award at WWW 2009, an Edelman Laureate in 2014, and a co-winner of the SigEcom Test of Time Award in 2018.

From: Ashish Goel <ashishg@stanford.edu>
Sent: Sunday, August 19, 2018 6:38 PM
To: Erengil, Jac <jac.erengil@utexas.edu>
Subject: Re: Nikolova Promotion Letter

Attached.

Many thanks for your patience,
Ashish.

C

Massachusetts Institute of Technology   **Dr. Patrick Jaillet**   77 Massachusetts Avenue
                                           Dugald C. Jackson Professor   Cambridge, MA 02139

                                           Department of Electrical   Room   32-D624
                                           Engineering and Computer Science   Phone 617–452–3379
                                           (EECS), LIDS, IDSS, and   Email jaillet@mit.edu
                                           Operations Research Center (ORC)

August 5, 2018

Professor Ahmed Tewfik
Cockrell Family Regents Chair in Engineering
Chairman, Department of Electrical and Computer Engineering

Dear Professor Tewfik,

I have prepared an evaluation of Dr. Edvokia Nikolova's scholarly qualifications as requested in your letter of June 12, 2018. I understand that she is being considered for promotion to the rank of Associate Professor with Tenure.

Background: I have been aware of Professor Nikolova's work in some details for about 9 years now, since we first met upon her finishing her PhD with David Karger and then working as a post-doc with Hari Balakrishnan. We have met several times during this period to talk about research. We have however never collaborated on a common research project, nor written a joint publication. I believe that I am in a reasonable position to provide input on some aspects of her scholarly contributions.

Overall Comments: I consider Prof Nikolova's overall record to be a strong one. Her publication record is very good and contains solid papers with methodological depth. She has good taste and vision for interesting problems to tackle, as well as with the needed personal skills to collaborate with other top researchers. She also has a good track record with respect to research funding (grants) and seems to be a talented mentor. I won't say much about the teaching and service portfolios as these can usually be best evaluated internally. Let me simply mention that this aspect of the portfolio looks very favorable compare to all the cases I have been looking (at MIT and elsewhere).

Let me now expand a bit on the scholarly aspect.

I am quite familiar with some of her research contributions, notably (due to my own research group's interests) those related to network routing problems under uncertainty, and risk-averse decision making. For example, referring to the numbering provided in the references of her personal research statement, I have been quite aware of the publications [9], [10], [12], [13], [15] and [16], knowing the detailed content of these papers quite well. I consider these papers to be first-rate and typical of the work published by Prof. Nikolova: rigorous and mathematically sound, introducing novel ideas to some classical problems, with the aim to understanding fundamental properties. This is very high-quality work.

Motivated by this tenure evaluation request, I have read the other (more recent) paper submitted in her package (Correa et al., EC, 2018). Again, I found this publication to be of high quality, consistent with what I came to expect from Prof. Nikolova. Overall, I would say that the novelty, precision, and depth shown in her written documents to be impressive.

Let me briefly turn to comparisons with her peers. Restricting myself to the last few years, I can say that her record is in par with the recently tenured cases that I have been asked to review (at

Georgia Tech, USC, MIT, and Northwestern). Over a fifteen-year period, I would put her in the top 20% of all those I have evaluated and subsequently received tenure.

It is my view that her trajectory is very good and her work will continue to receive increased recognition world-wide.

As obvious from my comments, I offer my full support in favor of this promotion. If you need additional information, details or precision, please do not hesitate to contact me at jaillet@mit.edu.

Sincerely yours,

Patrick Jaillet
Dugald C. Jackson Professor, EECS
Co-Director, Operations Research Center

2

From: Patrick Jaillet <jaillet@mit.edu>
Sent: Sunday, August 5, 2018 11:56 PM
To: Tewfik, Ahmed H <tewfik@austin.utexas.edu>
Cc: Erengil, Jac <jac.erengil@utexas.edu>
Subject: Re: Response needed by Friday 6/22: would you be able to provide a letter of reference in support of the promotion of Prof. Nikolova to associate professor by July 27?

Dear Ahmed,
Attached please find my letter. Again thank you for your patience. Best regards,
—Patrick

Patrick Jaillet - biographical sketch

Dr. Patrick Jaillet is the Dugald C. Jackson Professor in the Department of Electrical Engineering and Computer Science and a member of the Laboratory for Information and Decision Systems at MIT. He is also co-Director of the MIT Operations Research Center and the Faculty Director of the MIT-France program. He was Head of Civil and Environmental Engineering at MIT from 2002 to 2009, where he currently holds a courtesy appointment. From 1991 to 2002 he was a professor at the University of Texas in Austin, the last five years as the Chair of the Department of Management Science and Information Systems within the McCombs School of Business School. He co-founded and was Director of UT Austin's Center for Computational Finance. Before his appointment in Austin, he was a faculty and a member of the Center for Applied Mathematics at the Ecole Nationale des Ponts et Chaussée in Paris. He received a Diplôme d'Ingénieur from France (1981), and then came to MIT where he received an SM in Transportation (1982) followed by a PhD in Operations Research (1985).

Dr. Jaillet's research interests include online optimization and learning; real-time, dynamic, and data-driven problems; and networks. His research is funded by US federal sources such as NSF, ONR, and internationally by Singapore. Professor Jaillet's teaching covers subjects such as algorithms; mathematical programming; network science and models; and probability. Dr. Jaillet's consulting activities primarily focus on the development of optimization-based analytic solutions in various industries, including defense, financial, electronic marketplace, and information technology.

Dr. Jaillet was a Fulbright scholar in 1990 and the recipient of many research and teaching awards. He is a Fellow of the Institute for Operations Research and Management Science Society (INFORMS), a member of the Mathematical Optimization Society (MOS), and a member of the Society for Industrial and Applied Mathematics (SIAM). He is currently an Associate Editor for INFORMS Journal on Optimization, Networks, and Naval Research Logistics, and has been an Associate Editor for Operations Research from 1994 until 2005 and for Transportation Science from 2002 until 2017.

Penn
Engineering

C

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Computer and Information Science Department
3330 Walnut Street
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Philadelphia, PA 19104-6309

July 11, 2018

Prof. Ahmed Tewfik
Cockrell Family Regents Chair in Engineering
Chairman, Department of Electrical and Computer Engineering

Dear Prof. Tewfik,

I am happy to write in support of Prof. Evdokia Nikolova's tenure and promotion to the rank of Associate Professor in your department. I have known of Prof. Nikolova's work for a few years now, but met her for the first time about 2 years ago at a planning meeting at the Simons Institute in Berkeley, for a program on Real Time Decision Making that she was co-organizing. Since then I have interacted with her significantly on a couple of occasions and have enjoyed my interactions each time.

Evdokia's core technical expertise lies squarely in theoretical computer science. But it would not be appropriate to evaluate her by the yardsticks used to evaluate researchers in this field. Theoretical computer science has a rich tradition of bringing its rigor and analytic tools to many other disciplines and societal problems with great success, for example, in resource optimization, computational biology, cybersecurity, privacy, and fairness. Evdokia's work follows this great tradition: Her main contributions are in modeling and understanding the behavior of risk-averse selfish agents in congestion games and specifically in selfish routing. Over the last few years, she has also been trying to model and understand smart grids with collaborators from this application domain. I will describe her work in some detail below.

In selfish routing we have a network (of roads, say) and each agent starts at some node and wants to end up at another. (In the non-atomic version there are not individual agents, but amounts of flow that want to go from point A to point B.) The delay that an agent encounters on any link in the network is a (linear) function of the number of people (amount of flow) using that link. The standard version of the problem is to seek an equilibrium where each agent is minimizing their expected delay (assuming probabilistic behavior by all agents).

Evdokia's key insight was that risk-averse agents do not want to simply minimize the expected delay. It may be unacceptable to them if the delay has high variance. Instead she defined the notion of agents minimizing either the sum of the mean and some multiple of the standard deviation. The larger the multiple, the more risk-averse the agent is. (It is always possible to model risk using arbitrary utility functions for agents, but at this level of generality no positive algorithmic result could be hoped for.) The resulting mathematics is completely different from that of the standard model. Evdokia initially showed how a single risk-averse agent would behave in a quiescent network; she next wrote several excellent papers considering situations where all agents are risk-averse to the same extent. Finally, she considered the situation where there is diversity among the agents' level of risk aversion, and asked whether such diversity could contribute to a more socially optimal equilibrium. Her answer was that in general this would not be the case: only in networks with special structure would diversity help.

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I am a fan of this main line of Evdokia's research for a number of reasons: 1) She breaks new conceptual ground in her problem choice. 2) She models a very real situation and does so without oversimplifying the model for the sake of computational tractability. 3) At the same time, her models are elegant and admit analytical tools. 4) She often has an empirical component to her work and has very successful evaluations of her results. In addition, I have been working for several months now on whether and when diversity of goals helps in achieving better equilibria, and I can particularly appreciate Evdokia's way of classifying networks into those on which diversity helps and those on which it doesn't. Evdokia's papers and presentations are also eloquent and clear, laying out the case for the modeling choices she makes with persuasive arguments. I am less familiar with Evdokia's work on smart grids, but I have seen that some of the top researchers in smart grids (in addition to her coauthors) seek her out for technical discussions on problems.

It is customary in letters of this kind to make comparative statements. Unfortunately I will not be able to do that here. It would not be appropriate to compare Evdokia to a pool of theoretical computer scientists. While I am familiar with the work of various theorists doing applied work, I do not know a sufficient number of young theorists whose work is exactly in the areas that Evdokia works on. I can say that Evdokia publishes in a broad range of venues. EC and WINE are still young conferences, but they are very well-regarded, and I send some of my own favorite results to these conferences. IJCAI is the top AI conference and it is laudable that Evdokia got the AI community interested in risk-averse routing problems by publishing several of her papers there.

Overall, I am confident Evdokia will continue to be very successful – she has great taste in problem choice and modeling, and she continues to do the empirical evaluation necessary to validate (and possibly modify) her models. Her rising citation count is a clear signal that her body of work on risk aversion is having a big impact. I strongly recommend her for tenure.

Sincerely,

Sampath K. Kannan
Henry Salvatori Professor
Computer and Information Science Department
University of Pennsylvania

UNIVERSITY *of* PENNSYLVANIA

From: kannan <kannan@cis.upenn.edu>
Sent: Sunday, August 5, 2018 4:51 AM
To: Erengil, Jac <jac.erengil@utexas.edu>
Cc: Tewfik, Ahmed H <tewfik@austin.utexas.edu>
Subject: Re: Promotion Consideration, Dr. Nikolova

Hi Jac,

Please find attached my letter for Evdokia.

Best,
Sampath

Sampath Kannan

Henry Salvatori Professor
Computer and Information Science (CIS)

Sampath Kannan is the Henry Salvatori Professor and Department Chair in the Department of Computer and Information Science at the University of Pennsylvania. Sampath's research spans several subfields in algorithms. In his work on massive data set algorithms, Sampath explores what can be computed efficiently, and what is not computable. He is also interested in program checking, a paradigm for ensuring the correctness of a program by observing its behavior at run-time, and in algorithmic problems in computational biology, particularly the problem of reconstructing the evolutionary history of a set of species from phenotypic and molecular sequence observations.

Honors and Awards: Outstanding Faculty Advising Award - 2005

Research Expertise: Algorithms and Complexity
Sampath's research spans several subfields in algorithms. In his work on massive data set algorithms, Sampath explores what can be computed efficiently, and what is not computable. He is also interested in program checking, a paradigm for ensuring the correctness of a program by observing its behavior at run-time, and in algorithmic problems in computational biology, particularly the problem of reconstructing the evolutionary history of a set of species from phenotypic and molecular sequence observations.

Member of:
- Institute for Research in Cognitive Science (IRCS)
- Penn Center for Bioinformatics (PCBi)

BC

TUM

Technische Universität München | Lehrstuhl für Operations Research
Arcisstraße 21 | 80333 München

Professor Ahmed Tewfik
Chair, Dept. of Electrical and Computer
Engineering
Cockrell School of Engineering
The University of Texas at Austin

August 20, 2018

Evaluation of Dr. Evdokia Nikolova for possible promotion to Associate Professor with Tenure

Dear Professor Tewfik,

I am responding to your request to evaluate Dr. Evdokia Nikolova in support of the upcoming deliberations on promoting her to Tenured Associate Professor. By background, I have met Dr. Nikolova at MIT where she did her PhD and spent some time as a postdoc. Apart from her former advisor (David Karger), she has published most often with Nicolas Stier-Moses, who was one of my PhD students at MIT. He graduated in 2004.

Dr. Nikolova is a theoretical computer scientist by training, but has taken interest in models that may better reflect certain real-world phenomena. Most prominently, she has studied stochastic variants of combinatorial optimization problems (especially the shortest path problem), and she has analyzed the effects of risk aversion in game-theoretic settings, particularly in the context of selfish routing.

Classic combinatorial optimization theory concerns deterministic settings. For instance. it is assumed that the lengths of origin-destination paths in networks is known with certainty. Similarly, most selfish-routing/traffic assignment models assume risk-neutral agents, while in practice most users may be risk-averse (i.e., all else being equal, prefer low-variance outcomes to high-variance ones). Risk aversion leads to challenges in the mathematical analysis of the resulting models, and often to different insights compared to the case of risk-neutral players.

Prior to your request, I had not been familiar with the five publications that Dr. Nikolova has identified as her most significant ones. I have read them with interest, especially because they are scholarly and eloquently written. Moreover, they identify a number of intriguing open problems. However, let me rather review some of the results therein that I find most relevant.

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Wirtschaftswissenschaften	Alexander von Humboldt-Professor		
Lehrstuhl für Operations Research	Ordinarius	andreas.s.schulz@tum.de	www.or.tum.de

TLⱮ

Let me start by discussing a paper that was recently accepted for presentation at the premier conference in the relatively new field of algorithmic game theory, ACM EC 2018.[1] In a network in which different profit-maximizing providers compete by setting a fee for the link they own[2] (and where subsequently selfish agents experience costs comprised of latencies and tolls and otherwise behave as in selfish routing), Dr. Nikolova and her coauthors note that price equilibria may not exist. However, they show that when fees are capped appropriately, a unique equilibrium exists. It even is immune to coalitions. While the theory for proving this result had been in place, it is a nice example in that it shows how proper mathematical analysis may influence policy making.

Paper #2, which appeared in the top journal of the field of Operations Research, represents a rather systematic study of how including uncertain latencies in the standard selfish routing model leads to changes in the existence and characterization of equilibria and how it may influence the loss of efficiency due to selfish behavior. This requires a sound knowledge of tools and techniques from a variety of fields, including network flows, convex analysis, equilibrium theory, and stochastic shortest paths. Technically most demanding is the case in which the standard deviation of the latency of a link depends on the flow on that link. However, a drawback is that the loss of efficiency (nowadays commonly known as the price of anarchy) is measured as in the case with deterministic latencies, making it hard to separate the effects of selfishness and risk.

This has been addressed in Paper #1, which is apparently set to appear in another top journal of the field (and which I like best from this set). The authors introduce a new concept, which they call "price of risk aversion." It relates the cost of a risk-averse equilibrium to that of a risk-neutral equilibrium, where the cost is measured in terms of expected latencies. This notion now captures properly how much society pays for the risk-aversion of users. Unfortunately, it turns out that this measure is unbounded in general. (Put differently, it depends linearly on the variance). The authors therefore assume that the variance-to-mean ratio is bounded to begin with. Under this assumption, they show that the price of risk-aversion is bounded above by an expression that depends linearly on the product of the parameter capturing the risk aversion and a parameter characterizing the network topology. In general, the latter parameter may be as large as half the number of nodes in the network. However, the authors show that this bound is, indeed, tight. Inspired by follow-up work of Meir and Parkes, they also derive an alternative bound that depends on risk-aversion and the price of anarchy of the corresponding deterministic game only. They also argue that the assumption of homogeneous users (all players have the same attitude towards risk) does in general not influence their results.

In my view, it is fair to claim that Dr. Nikolova has been at the forefront of researchers trying to

---

[1] Paper #4 on the list of five.
[2] The assumption that each owns only one link seems a bit unrealistic.

TIM

incorporate important stochastic aspects into network optimization and equilibrium models. She may not have had what one may typically consider a home-run paper, but with meticulous work she has certainly helped to bring this research direction forward.

Dr. Nikolova has only four journal publications, which would be very few in any environment in which this would be the main measure of success. However, three of the four papers are in top journals. Moreover, in theoretical computer science, the community generally cares more about refereed conference publications, of which she has many more. I am not sufficiently knowledgeable to speak to the AI proceedings in which she has published, but her stream of papers in ACM EC is good, with acceptances in 2018, 2015, 2013, 2007 (2), and 2005. As mentioned before, ACM EC is the top conference in algorithmic game theory, if one does not choose to submit or get into general theory conferences such as STOC, FOCS or SODA.

I have not recently had a chance to attend a lecture or talk by Dr. Nikolova, but from what I remember, I can easily imagine that she has become a very good teacher and advisor.

My bottom line for the decision at hand: Dr. Nikolova is a talented, widely knowledgeable scholar who is working on a diverse set of topics and who has produced an interesting body of work, which I have enjoyed reading. All in all, I would encourage you to seriously consider promoting Dr. Nikolova to Associate Professor with Tenure.

Sincerely,

Andreas S. Schulz
Alexander von Humboldt-Professor

P.S. As per your request, a biographical sketch of myself is included below.

TLM

Biographical sketch:

Andreas S. Schulz is endowed chaired full professor at TU Munich. He holds a joint appointment in the Department of Mathematics and in the School of Management. He is also an Honorary Fellow of the Institute of Advanced Study as well as a Research Affiliate of the Massachusetts Institute of Technology (MIT), where he previously was the Patrick J. McGovern Professor of Mathematics of Operations Research. In 2015, with the help of an Alexander von Humboldt-Professorship— the most highly-endowed research award in Germany — Professor Schulz founded the Research Group for Operations Research at TU Munich.   From 1998 to 2015, Professor Schulz was a member of the faculty at MIT in Cambridge, Massachusetts. He held visiting positions at the Sauder School of Business of the University of British Columbia, at the Faculty of Economics and Business Administration of Maastricht University, at the Institute of Theoretical Computer Science at ETH Zurich, and at the Department of Mathematics of TU Berlin, from which he obtained his PhD in 1996. Professor Schulz has published more than 80 peer-reviewed articles, and he has received several awards for his research, including the Humboldt Research Award in recognition of his lifetime achievements in research and membership in the Junge Akademie of the Berlin-Brandenburg Academy of Sciences and Humanities and the German National Academy of Sciences Leopoldina. He has served on the editorial boards of several leading journals, including ACM Transactions on Algorithms, Discrete Optimization, INFORMS Journal on Computing, Journal of Scheduling, and Operations Research. His research interests include algorithmic game theory, approximation algorithms, combinatorial optimization, computational complexity, integer programming, network flows, polyhedral combinatorics, and scheduling theory.

4/4

File Properties

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Name

Nikolova.Schulz.pdf

Description

Letter of review for Dr. Nikolova

Owner

Andrew Carr

Enterprise Owner

The University of Texas at Austin

Last Updated By

andreas.s.schulz@tum.de

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Aug 20, 2018, 2:47 PM

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BC

Cornell University
School of Operations Research
and Industrial Engineering

Frank H. T. Rhodes Hall
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t. 607.255.4856
f. 607.255.9129

David Shmoys
Laibe/Acheson Professor
231 Rhodes Hall
607-255-9146
shmoys@orie.cornell.edu
https://
people.orie.cornell.edu/shmoys/

August 18, 2018

Dr. Ahmed Tewfik
Cockrell Family Regents Chair in Eingeering
Chairman
Department of Electrical and Computer Engineering
Cockrell School of Engineering
Engineering Education & Research Center ((ER)
2501 Speedway, Room 2,864,C0803
Austin, TX 78712

Dear Professor Tewfik:

I am writing in response to your request that I evaluate the work and promise of Evdokia
Nikolova, who is being considered for promotion to Associate Professor with indefinite
tenure in the Department of Electrical and Computer Engineering at the University of
Texas at Austin.

I have known Evdokia since her graduate school and postdoctoral years – at the time we
were both focused on emerging theoretical algorithmic approaches to studying stochastic
optimization problems in networks, and her doctoral work included several interesting
results along those lines. In spite of this early contact, perhaps largely due to the fact that
my own work has moved in a rather different direction, focusing on more application-
driven issues, I have not followed her work closely in the intervening years; my most
extended interactions with her recently were facilitated by the fact that I was a long-term
visitor in the semester-long program on real-time decision-making at the Simons Institute
for Theory of Computing at the University of California at Berkeley, for which she was
one of the 5 program organizers. In fact, it was clear that she had matured professionally
to the point that she had taken on the role of *the* main organizer, in spite of the fact that
the others of this group were an extremely distinguished, senior, and extraordinarily
broad cohort.

The main thrust of Nikolova's work has been to develop algorithmic solutions to capture
the interplay between stochastic models of demand in a network (primarily for traffic
routing, but more recently in the context of energy networks), with multiple agents
competing for these resources, and hence viewed in a game-theoretic context. Her work
has also focused on a variety of models to capture notions of risk in these settings. For
example, with the traffic routing setting, results that have stimulated tremendous activity
have been the study of the price of anarchy – what is the worst-case (or Bayesian worst-
case) cost of having decision-making by selfish agents, rather than by a social-good-

coordinating entity? Instead, Nikolova has approached the question of the price of risk-aversion, modeling this in numerous ways throughout her work. This is a fundamentally important line of work, which really came into sharp focus in her recent paper with Lianeas and Stier-Moses. In reading through the packet of papers sent for reviewing her case, it was this paper that provides an excellent point of reference in her explorations in this domain. It is technically non-trivial, and provides clear insights into the tradeoffs exposed by this elegant framing of the question. It appears that her collaboration with Stier-Moses has been extremely fruitful, because I also found their *Operations Research* paper on a mean-risk model for the traffic assignment problem with stochastic travel times to be a very strong piece of work – the modeling aspects and the mathematical structural results combine to provide clear insights into a central problem in routing control, and with the rise of app-based traffic routing, the importance of these results is ever-increasing.

The impact of Nikolova's body of research is starting to really gain in traction. I expect that the two papers mentioned above, which are quite recent, will generate quite a bit of follow-up work by a cross-section of researchers. Her paper from the 2016 ACM EC conference has also been influential, with over 30 citations to date in this short period since its appearance. I believe that the body of work is comparable in breadth and depth to her peers approaching tenure decisions at their respective research-oriented universities, and that a tenure case of these merits would have strong proponents at most top-10 departments. She has been a good mentor for PhD students and has now developed what seems to be a good pipeline of both doctoral and postdoctoral mentees, along with obtaining the research support to maintain it. Her research agenda is a good one – I think that she is moving towards not just attacking stylized models, but rather trying to capture settings in which her work can have real-world impact, and I strongly support this transition. She is an articulate expositor, and I can well imagine that she can be highly effective in the classroom (though I have no first-hand basis on which to make any definite conclusions). Her role in the Simons semester bodes well for her future leadership in the algorithms community, and her research agenda is well-positioned to be an area of increasing importance.

I believe that her record is roughly consistent with the expected achievements required for tenure.

David Shmoys
Laibe/Acheson Professor

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Name

Nikolova - Tenure Letter.pdf

Description

Shmoys letter for Nikolova tenure case

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Andrew Carr

Enterprise Owner

The University of Texas at Austin

Last Updated By

david.shmoys@cornell.edu

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Aug 18, 2018, 9:19 PM

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David B. Shmoys
Laibe/Acheson Professor of Business Management & Leadership Studies
Associate Director, Institute for Computational Sustainability
School of Operations Research and Information Engineering
Department of Computer Science
Cornell University

Research

The primary focus of my research is on the design and analysis of efficient algorithms for discrete optimization problems, and in particular, on approximation algorithms for NP-hard and other computationally intractable problems. Linear programming relaxations have played a fundamental role in obtaining good solutions to hard optimization problems, and we continue to study their application to a range of problems in clustering, sequencing and scheduling, and inventory problems, in both deterministic and stochastic optimization settings. In addition to studying these problems with a theoretical lens, we have been involved in the practical application of these techniques in settings ranging from genomics to medical aircraft scheduling to the long-term planning for the preservation of the red-cockaded woodpecker to the operational logistics and design of bike-sharing systems.

Research Areas

Sequencing and Scheduling Problems
Stochastic Optimization Problems
Deterministic Inventory Models
Clustering and Facility Location Problems
Computational Sustainability

Brief Bio

David Shmoys obtained his Ph.D. in Computer Science from the University of California at Berkeley in 1984 and held postdoctoral positions at MSRI in Berkeley and Harvard University, and a faculty position at MIT before joining the Cornell faculty. He is Co-Chair of the Academic Planning Committee for Cornell Tech and Associate Director of the Institute of Computational Sustainability at Cornell University.

He is a Fellow of the ACM, INFORMS, and of SIAM, was an NSF Presidential Young Investigator, and has served on numerous editorial boards, including Mathematics of Operations Research (for which he is currently an Associate Editor), Operations Research, ORSA Journal on Computing, Mathematical Programming, and the SIAM Journals of both Computing and Discrete Mathematics, where for the latter he also served as Editor-in-Chief. He has been the advisor for 21 graduated Ph.D. students, and his former students are currently on the faculties of many leading universities and research labs, including MIT, Waterloo, Brown, Maryland, Georgetown, and D-Wave.

Shmoys' research has focused on the design and analysis of efficient algorithms for discrete optimization problems, with applications including scheduling, inventory theory, computational biology, and most recently, computational sustainability. His work has highlighted the central role that linear programming plays in the design of approximation algorithms for NP-hard problems; his recent book, co-authored with David Williamson), The Design of Approximation Algorithms, was awarded the 2013 Lanchester Prize by INFORMS.

BC

Georgia ⫟ H. Milton Stewart School of
Tech ⫟ Industrial and Systems Engineering

August 19, 2018

Dear Colleagues,

It is with great pleasure that I am writing this letter as part of the promotion and tenure of Prof. Evdokia Nikolova (Evdokia).

Let me start with a high-level summary. Evdokia has a remarkable profile. She pioneered the concept of risk aversion and its application to complex systems/networks and established its foundation in a number of outstanding and insightful papers. Her funding record is excellent, especially for a junior faculty in a more theoretical part of the field. She is highly visible in the field and beyond, which is unusual for someone at this stage of her career. I believe that she would have awarded tenure and promotion easily in all institutions I have been part of. This includes Computer Science at Brown University where I was a professor for 20 years, the IOE and EECS departments of the University of Michigan, and the school of Industrial and Systems Engineering at Georgia Tech.

As I mentioned, Evdokia pioneered the concept of risk aversion in networks and studied the impact of risk aversion on network routing, producing a series of important articles. She then tried to generalize these early results to multiple users with the framework of algorithmic game theory. She showed how difficult this was even for very simple and natural risk measure, providing another key insight in the nature of risk aversion in networks. Perhaps one of her key insights was related to the price of anarchy, i.e., the cost of letting agents act selfishly instead of optimizing a system globally (which may not be even possible in practice). She showed that, depending on how risk is modeled, the price of anarchy could vary widely, from simple constant factors (which means that there is limited to selfishness) to infinity, which means that selfish behavior is highly detrimental. The consequence of these results is that risk modeling is critical and should be considered very carefully, an area that, Evdokia argued, needs much more attention. This obviously goes well beyond computer science and algorithmic game theory. Finally, as was to be expected, Evdokia then worked on characterizing the price of risk aversion per se, concluding a research program that has been impressive in its depth and breadth.

In the way she approaches her research, Evdokia reminds me of Katrina Liggett who was an undergraduate student at Brown University, went to CMU for her PhD thesis (under A. Blum), was an assistant professor at Caltech for many years before moving as an associate professor at the Hebrew University (for family reasons). Both have pioneered new concepts and developed their foundations with fundamentally new insights, and their work bridges different areas of the field. It is also important to emphasize Evdokia's co-authors, which is a group of exceptional scientists. This, in my opinion, is further indication of her stature in the field and how she is regarded by senior faculty in the field.

● Page 2   August 19, 2018

Evdokia's publication record is very strong. Her conference papers are published in a variety of highly selective, premier venues in artificial intelligence, electronic commerce, theoretical computer science, networking, and power systems. Her last three journal papers are in the best journals in operations research and electronic commerce. Her funding record, building on her NSF career award, is very strong for someone working in the more theoretical part of the field, and indicates the practical relevance of her results and insights.

Evdokia has now moved to electrical distribution systems, a field that faces fundamental challenges and opportunities with the emergence of distributed generation. I will be following Evdokia's work closely in the coming years, since her skills may bring some fundamentally new insights that will help shape the future of electricity networks.

As should be clear from this letter, I believe that Evdokia is a remarkable scientist with a strong case for tenure and promotion. She would certainly have received tenure easily at all the institutions I have been affiliated with and I believe that she will be an asset to your university for many years to come.

Please do not hesitate to contact me if you have additional questions,

Best regards,

Pascal Van Hentenryck

A. Russell Chandler III Chair and Professor
H. Milton Stewart School of Industrial and Systems Engineering
Center for Machine Learning (ML@GT)
Georgia Institute of Technology
755 Ferst Drive, NW, Atlanta, GA 30332
Phone: 404.385.5538
Email: pvh@isye.gatech.edu

From: Van Hentenryck, Pascal <pascal.vanhentenryck@isye.gatech.edu>
Sent: Sunday, August 19, 2018 11:35 AM
To: Erengil, Jac <jac.erengil@utexas.edu>
Subject: Nikolova's Promotion Letter

Dear Jac,

Please find in attachment my letter for the promotion and tenure of Professor E. Nikolova.

I would like to apologize for having created some unnecessary stress on your side. I recently moved to Georgia Tech and we had a series of unfortunate events happen during the move (those are now resolved fortunately).

I was very pleased to write these letters and do not hesitate to contact me, would you need more information.

Many thanks and best regards,

Pascal

Pascal Van Hentenryck
Professor, Industrial and Operations Engineering
University of Michigan

Pascal Van Hentenryck is the Seth Bonder Collegiate Professor at the University of Michigan. He is professor of Industrial and Operations Engineering, Professor of Computer Science and Engineering, and Core Faculty in the Michigan Institute for Data Science. Prior to this appointment, he led the optimization research group (about 70 people) at National ICT Australia (NICTA) (until its merger with CSIRO) and was a professor of Computer Science at Brown University for about 20 years, which he joined after his PhD in Belgium. Van Hentenryck is also an Honorary Professor at the Australian National University.

Van Hentenryck is a Fellow of AAAI (the Association for the Advancement of Artificial Intelligence) and INFORMS (the Institute for Operations Research and Management Science). He has been awarded two honorary doctoral degrees from the University of Louvain and the university of Nantes, the IFORS Distinguished Lecturer Award, the Philip J. Bray Award for teaching excellence in the physical sciences at Brown University, the ACP Award for Research Excellence in Constraint Programming, the ICS INFORMS Prize for Research Excellence at the Intersection of Computer Science and Operations Research, and an NSF National Young Investigator Award. He received a Test of Time Award (20 years) from the Association of Logic Programming and numerous best paper awards, including at IJCAI and AAAI. Van Hentenryck has given plenary/semi-plenary talks at the International Joint Conference on Artificial Intelligence (twice), the International Symposium on Mathematical Programming, the SIAM Optimization Conference, the Annual INFORMS Conference, NIPS, and many other conferences. Van Hentenryck is program co-chair of the AAAI'19 conference.

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

COMPUTER SCIENCE

BC

Mihalis Yannakakis
(212) 939-7145
mihalis@cs.columbia.edu
http://www.cs.columbia.edu/~mihalis

August 10, 2018

Dr. Ahmed Tewfik
Chair, Department of Electrical and Computer Engineering
University of Texas
Austin, Texas

Dear Prof. Tewfik:

This is a letter concerning Dr. Evdokia Nikolova who is being considered for promotion to the rank of Associate Professor with tenure. I know Dr. Nikolova since she was in graduate school and I am familiar with several of her papers.

Dr. Nikolova works in the general area of algorithms and their applications, especially in networks and transportation. Her research focuses especially on issues arising from uncertainty in available information, and from interaction between different agents. It involves rigorous mathematical modeling of the context (e.g. the transportation network) and the agents and their objectives including in particular modeling the risk tolerance and its effect in decision making. The works uses tools from game theory, probability, optimization, and design and analysis of efficient algorithms. She has compiled a strong research record of solid papers addressing rigorously these issues and providing basic models, concepts and results in this area.

In her early work, Dr. Nikolova studied routing and shortest path problems under uncertainty, and published a series of very nice papers presenting algorithms for finding shortest paths in networks where the edge lengths have given probability distributions and/or the lengths are discovered dynamically online during the route (the so-called "Canadian traveler problem", a problem that I had studied earlier myself). Subsequently, and especially in the recent years, she has expanded substantially the scope of her investigations in various directions, concentrating on modeling and analyzing risk and its effects.

In the paper "A mean-risk model for the traffic assignment problem with stochastic travel times" (with Stier-Moses, published in Operations Research 2014) she introduced a model that combines risk considerations for the users and stochastic information on the

network, in which the agents want to minimize a linear combination of the mean time and standard deviation, where the relative weights in the linear combination reflect the risk tolerance of the agents. The paper analyzes the equilibria in this model, both for atomic and nonatomic agents, their existence, computation, and succinctness.

In her paper "Risk sensitivity of price of anarchy under uncertainty" (with Piliouras and Shamma in ACM TEAC 2016), she studied how the price of anarchy is affected by the risk model. The price of anarchy measures the loss in efficiency due to the uncoordinated behavior of different agents, each optimizing independently their own objectives, as compared to a centrally optimized system. Although the price of anarchy of routing problems has been studied extensively in the past, this is the first paper that addresses the effects of risk. The paper shows that the risk model can make a big difference in the price of anarchy, ranging from a small constant to infinity. In a subsequent paper, "Risk-averse selfish routing" (with her student Lianeas and Stier Moses, to appear in Mathematics of Operations Research), she studies more closely the quantitative effects of risk aversion; she defines a parameter for this purpose, the 'price of risk aversion' measuring how much the performance deteriorates due to risk aversion, and studies this parameter in the mean-risk model, where the risk aversion is measured by the weight given to the variance in the delay of a path. The paper derives bounds on the price of risk aversion in terms of the size and the structure of the network.

Dr. Nikolova has done a number of other interesting works in various other aspects of networks and optimization. For example, a very nice paper in this year's EC conference shows how to set caps on tolls charged by toll operators to induce an equilibrium that achieves optimal total delay. In a paper in this year's IJCAI, she examines for which kinds of networks diversity in users' preferences in the relative importance of time versus cost, helps in reducing congestion.

Dr. Nikolova is productive and publishes regularly in prime conferences in algorithmic game theory like EC (ACM Conf. on Economics and Computation) and in AI like AAAI. She is also very active and involved in the community, serving often on the program committees of these and other conferences.

In summary, Dr. Nikolova has built a very strong record of solid research results. She investigates well-motivated, important problems, and applies a rigorous approach to model the problems and address them mathematically and algorithmically. I recommend her promotion to Associate Professor with tenure.

Sincerely,

Mihalis Yannakakis
Percy K. and Vida L. W. Hudson Professor
of Computer Science

From: Mihailis Yannakakis <mihalis@cs.columbia.edu>
Date: Friday, August 10, 2018 at 3:17 PM
To: "Erengil, Jac" <jac.erengil@utexas.edu>
Cc: Ahmed Tewfik <tewfik@austin.utexas.edu>, Mihailis Yannakakis <mihalis@cs.columbia.edu>
Subject: Re: Promotion Consideration, Dr. Nikolova

Attached please find my letter for Dr. Nikolova.

Best,
Mihailis

Mihalis Yannakakis

Mihalis Yannakakis is the Percy K. and Vida L. W. Hudson Professor of Computer Science at Columbia University. Prior to joining Columbia, he was Director of the Computing Principles Research Department at Bell Labs and at Avaya Labs, and Professor of Computer Science at Stanford University.

Dr. Yannakakis received his PhD from Princeton University. His research interests include algorithms, complexity, optimization, game theory, databases, testing and verification. He has served on the editorial boards of several journals, including as the past editor-in-chief of the SIAM Journal on Computing, and has chaired various conferences, including the IEEE Symposium on Foundations of Computer Science, the ACM Symposium on Theory of Computing and the ACM Symposium on Principles of Database Systems. Dr. Yannakakis is a member of the National Academy of Engineering, a recipient of the Knuth Prize, a Fellow of the ACM, and a Bell Labs Fellow.

Mihalis Yannakakis works on the theoretical foundations of computing, seeking to understand the inherent computational complexity of problems and to design efficient algorithms for their solution. He has applied this principled algorithmic approach to problems from different areas.

EXHIBIT 29

Message
_____

From:	Shockley, Carmen L [cshockley@austin.utexas.edu]
Sent:	3/1/2019 4:25:24 PM
To:	Evdokia Nikolova [nikolova2009@gmail.com]
CC:	President Gregory L. Fenves [president@utexas.edu]; Provost Maurie McInnis [provost@utexas.edu]; Dukerich, Janet M [janet.dukerich@austin.utexas.edu]; Wood, Sharon L [swood@utexas.edu]; Speitel, Gerald E [speitel@utexas.edu]; Tewfik, Ahmed H [tewfik@austin.utexas.edu]
Subject:	Re: Procedural tenure question

Dear Evdokia,

I'm not able to speak to your first question about the email being read by the recipients. But I can address your second question. The university only adds documentation to a promotion dossier that is required as documented in the General Guidelines or explicitly requested to be added to the dossier.

Sincerely,

Carmen

CARMEN SHOCKLEY, Assistant Vice President for Faculty Affairs
The University of Texas at Austin | Office of the Executive Vice President and Provost | 512-471-0240

....

From: Evdokia Nikolova <nikolova2009@gmail.com>
Date: Friday, March 1, 2019 at 10:12 AM
To: Carmen Shockley <cshockley@austin.utexas.edu>
Cc: "President Gregory L. Fenves" <president@utexas.edu>, Provost Maurie McInnis <provost@utexas.edu>, Janet Dukerich <janet.dukerich@austin.utexas.edu>, Sharon Wood <swood@utexas.edu>, "Speitel, Gerald E" <speitel@utexas.edu>, "Tewfik, Ahmed H" <tewfik@austin.utexas.edu>
Subject: Procedural tenure question

Dear Carmen,

I have just learnt that the below letter of support by Prof. Manuel Blum was submitted in support of my promotion case on January 8, 2019. Prof. Blum is the 1995 **Turing Award winner** (the equivalent of Nobel Prize winner for Computer Science). He put notable time in his letter.

Can you please tell me if it was read and considered by the recipients below in the decision on my case? And why was it not included in my promotion dossier?

Thank you,
Evdokia Nikolova

....

From: Manuel Blum <mblum@cs.cmu.edu>
Date: Tuesday, January 8, 2019 at 8:11 AM
To: President Greg Fenves <president@utexas.edu>

Cc: Manuel Blum <mblum@cs.cmu.edu>, Provost Maurie McInnis <provost@utexas.edu>, Vice Provost Janet Dukerich <janet.dukerich@austin.utexas.edu>, "Ms. Carmen Shockley" <cshockley@austin.utexas.edu>, Dean Sharon Wood <swood@utexas.edu>, "Assoc. Dean Gerald (Jerry) Speitel" <speitel@utexas.edu>, "Prof. Ahmed Tewfik" <tewfik@austin.utexas.edu>
Subject: Promotion of Assistant Professor Evdokia Nikolova to Associate Professor with tenure

8 January 2019

To: President Greg Fenves <president@utexas.edu>
Cc: Provost Maurie McInnis <provost@utexas.edu>
   Vice Provost Janet Dukerich <janet.dukerich@austin.utexas.edu>
   Ms. Carmen Shockley <cshockley@austin.utexas.edu>
   Dean Sharon Wood <swood@utexas.edu>
   Assoc. Dean Gerald (Jerry) Speitel <speitel@utexas.edu>
   Prof. Ahmed Tewfik <tewfik@austin.utexas.edu>

Dear President Fenves,

I am a university professor of Computer Science at Carnegie Mellon University. I met Assistant Professor Evdokia Nikolova last spring at the Simons Institute for the Theory of Computing in Berkeley while I was on sabbatical there: she was an organizer of the Real-Time Decision Making program, where she gave two first-rate talks that I attended: the survey talk "A Brief Introduction to Algorithms, Game Theory and Risk-averse Decision Making" https://www.youtube.com/watch?v=_BOrAoD7FWs, and a research talk on "Risk-averse Selfish Routing" https://www.youtube.com/watch?v=0JdIjgTS9ao. I understand that she is currently up for promotion to Associate Professor with tenure in the Department of Electrical and Computer Engineering in UT Austin's Cockrell School of Engineering, and that her promotion has been called into question.

Given that Nikolova is highly regarded in her field, that she has excellent recommendations from prominent colleagues at peer institutions, that her department's budget council and the Cockrell School's promotions and tenure committee recommended promotion, I was shocked to hear that her Dean did not agree with these recommendations for promotion. It is even more shocking given the stellar quality of her background and work. She was educated at Harvard, Cambridge University and MIT (PhD in electrical engineering and computer science with PhD advisor the exceptional Professor David Karger). Her research has been published in both high impact journals and peer reviewed conference proceedings. She has received several million dollars in funding for her research from NSF and from industry. In addition, I understand that her research with applications to transportation networks and smart grids is directly related to one of the School's cross cutting themes. Her service to the university (faculty and graduate student recruiting), service on numerous technical program committees, and help in organizing research programs, go well beyond the call of duty for junior faculty. She is also the mother of two young children. You could not find a better role model for your students. By September 2019, she will be 10 years past her PhD, and will have served as Assistant professor (Texas A&M and Austin) for 8 years. To deny her a promotion to Associate Professor with tenure would be mystifying to me, a travesty really.

Sincerely,

Manuel Blum
Bruce Nelson University Professor of Computer Science
Carnegie Mellon University

\-\-
Evdokia Nikolova
http://users.ece.utexas.edu/~nikolova/

EXHIBIT 30

Precision Analytics Co, LLC
978 McMurdo Circle
Castle Rock, CO, 80108

I.   EXPERT REPORT OF SHANE THOMPSON, PH.D.

Date: April 19, 2021

A.   Introduction

1.   The preliminary calculations in this report are based on data and information provided in Appendix B. The statistical analysis in this memo is predicated on the completeness and accuracy of the data provided. I reserve the right to supplement my calculations and assumptions as more information becomes available to me.

B.   Qualifications

2.   I am a forensic labor economist, with a Ph.D. (2013) and M.A. (2009) in economics from University of Arizona and a M.S. (2007) in economics from Utah State University. I am the chief economist and founder of Precision Analytics Co, LLC (Precision Analytics), a quantitative consultancy in Castle Rock, Colorado.

3.   My research, teaching, and professional practice have focused on labor markets, retirement plans, healthcare, job-training programs and pay (in)equity. I have worked with the U.S. Department of Labor to conduct large-scale, quantitative research studies and program evaluations on programs supported by the Employee Benefits Security Administration (EBSA); the Employment and Training Administration (ETA); the Occupational Safety and Health Administration (OSHA); the Veterans Employment and Training Service (VETS); and the Office of Workers' Compensation Programs (OWCP). In these studies, I oversaw teams of researchers, developed study designs, analyzed program data, and prepared published reports.

4.   I have taught graduate econometrics at Johns Hopkins University, graduate economics at the University of Colorado Denver, graduate research methods at American University, and several undergraduate courses at the University of Arizona. I have conducted and

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presented original research at scholarly and professional conferences and published articles in

academic journals. I have led several trainings and briefings for federal agencies. I have served as

an expert for legal matters involving retirement, economic damages, wage and hour disputes, and

workplace safety violations.

5.   I am being compensated at a rate of $350 per hour for my work in this matter. My

compensation is not contingent on my findings. My curriculum vitae, a true and correct copy of

which is attached in Appendix A, lists in further detail my teaching appointments, publications,

and conference presentations.

C.   Purpose of Declaration

6.   I was retained by The Law Office of Robert Notzon ("Notzon"), on behalf of Dr.

Evdokia Nikolova ("Plaintiff" or "Dr. Nikolova"), to opine on whether the University of Texas at

Austin ("Defendant" or "UT") exhibited historically different treatment towards female assistant

professors in tenure reviews, and specifically towards Dr. Nikolova during her tenure review in

2019.

7.   I have been asked to perform statistical tests and/or provide opinion on whether:

    a. there is evidence of different treatment towards female assistant professors,

        specifically in their prevalence of early tenure reviews;

    b. there is evidence of different impact towards female assistant professors

        who take probationary extensions and go up early;

    c. there is evidence that Dr. Nikolova's denied promotion is statistically

        unexplainable given the in-favor votes she received from the departmental

        budget council and college advisory committee.

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D.   Summary of Opinions

8.   There is statistically significant evidence of different treatment towards females in

their prevalence at UT of going up for early tenure reviews. From 2009 to 2018, 26 assistant

professors went up for early tenure reviews, 24 of which were males. After accounting for their

prevalence in the full population, male professors were still almost four times more likely to go up

for early reviews (36.9% to 9.5%). This disparity in early tenure reviews between male and female

assistant professors is statistically significant at the 5% level. I conclude that disparity in

opportunity did not happen by chance. See Table 1.

Table 1: Early Tenure Reviews by Gender

Gender	Tenure Reviews 2009 through 2018	Early Reviews 2009 through 2018	Percent Early Review	Stat Significant Disparity?
Male Assistant Professors	65 (76%)	24 (92%)	37% (24/65)	
Female Assistant Professors	21 (24%)	2 (8%)	10% (2/21)	Yes
Total	86 (100%)	26 (100%)		

Note: Data are from tenure reviews in the 10 years prior to Dr. Nikolova's review.

9.   There were only three assistant professors who went up early after taking

probationary extensions. All three were male, and all three were promoted. Dr. Nikolova was the

first female in that circumstance to go up for tenure, and she was denied. It is mathematically

impossible to conduct a statistical test on such a small sample. However, given the statistically

significant over-representation of males going up early for tenure (and *all* getting promoted), the

fact that three males had gone up early after taking probationary extensions and *all* got promoted

makes Dr. Nikolova's promotion denial peculiar.

10.   Although I can neither confirm nor disprove whether there is a differential impact

on female assistant professors who take probationary extensions at UT (due to sample size alone),

the statistical tests in other sections of this report, which rely on sufficiently large samples and

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result in statistically significant findings, lend credence to Dr. Nikolova's differential impact claim.

UT had a history of differential treatment towards female professors (in their prevalence of early

tenure reviews). Further, female professors in STEM face inordinate obstacles relative to their

male peers in obtaining tenure.[1] Dr. Nikolova has clear justification to question whether she has

suffered from a differential impact at UT due entirely to her gender and her pregnancies.

11.   Lastly, I found that in 2019 Dr. Nikolova became the first assistant professor to be

denied promotion after receiving 100% in-favor votes from the college advisory committee. There

had been 62 previous occurrences of a perfect vote from the college advisory committee, and all

had resulted in promotions. Further, using a regression model, Dr. Nikolova's predicted probability

of promotion given her voting outcomes was 96%. See Table 2.

Table 2: Voting Records and Predicted Probability of Promotion

Promotion Outcome	Count	Dept BC In-Favor Vote	CAC In-Favor Vote	Predicted Prob of Promotion
Promoted	73	98%	94%	93%
Denied	13	67%	43%	40%
Dr. Nikolova	1	97%	100%	96%

Note: Data are from tenure reviews in the 10 years prior to Dr. Nikolova's review. BC stands for Budget Council; CAC stands for College Advisory Committee.

12.   I conclude that female assistant professors suffer statistically significant different

treatment in their ability to go up for early reviews at UT. I also conclude that Dr. Nikolova had a

near-100% probability of promotion given her voting outcomes and suffered a statistically

unexplainable promotion denial.

E.   Different Treatment by Gender: Early Tenure Reviews

13.   There were 86 tenure reviews that occurred from 2009 through 2018 (the 10 years

preceding Dr. Nikolova's tenure review in 2019). During those 10 years, 26 assistant professors

---

[1] See the report prepared in this matter by Dr. Peter Glick, specifically pages 19-35.

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went up "early," defined as a review that occurs before having 6 years at UT. All 26 assistant

professors were promoted, so early reviews invariably resulted in promotions prior to 2019.

14.   Surprisingly, only 2 of the 26 "early review" assistant professors were females.

Females made up 24% (21/86) of the assistant professor population, but only 8% (2/26) of the

early review population. I found that from 2009 to 2018, male professors were almost four times

more likely to go up for early tenure reviews than their female counterparts (37% (24/65) to 10%

(2/21) respectively).

15.   My statistical test to determine whether there was different treatment towards

female assistant professors is predicated on the following question: *If female and male assistant*

professors were equally capable to go up for early tenure reviews, what is the probability that

male assistant professors would go up early four times more often than female assistant

professors?[2]

16.   I conduct a two-sample test of proportions to determine whether the 27-percentage-

point disparity is statistically significant.[3] I find that the probability of such a difference (37% to

10%) between male and female professors is 1.8%, exceptionally small.

17.   As an example, consider a hypothetical scenario where you place 86 balls in a jar,

representing the 86 assistant professors. Next, you write the letter "F" on 21 of the balls,

representing the 21 female assistant professors. If you were to randomly select 26 balls out of the

---

[2] This simple probability test assumes that all professors have equally-productive performance records. My subsequent analysis in a later section controls for the voting outcomes of the individual professors and does not require male and female assistant professors to be otherwise equal.

[3] Statisticians require overwhelming statistical evidence to assert statistically significant findings. We start with a null hypothesis – an assumption about how the world works. Without strong evidence to the contrary, we retain the null hypothesis as the tentative truth. We test the null hypothesis by exploring alternate hypotheses – opposing assertions about how the world works. We require very strong evidence in favor of the alternate hypothesis before we reject the null hypothesis. We reject the null hypothesis in favor of the alternate hypothesis when the data make the null hypothesis seem implausible. More specifically, if the outcome we see in the data would happen with less than 5% probability under the null hypothesis worldview, we reject the null hypothesis.

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jar (representing the 26 early review assistant professors) in a repeated experiment 100 different

times, you would expect to select two or fewer "F"s *just twice*. This is a rare event.

18.   Since 1.8% is less than 5%, I reject the null hypothesis in favor of the alternate

hypothesis. I conclude that male assistant professors are beneficiaries of different treatment in

early tenure reviews.

F.   Different Impact by Gender: Early Tenure Reviews after Probationary Extensions

19.   From 2009 to 2018, there were only three assistant professors who had taken

probationary extensions that went up early for tenure reviews. All three were male, and all three

received promotions.

20.   A sample size of three is insufficient to conduct a statistical test. Further, because

all three assistant professors were male, I cannot test for different impact between them and female

assistant professors in this small group.

21.   However, each of the following circumstances were present when Dr. Nikolova

went into her early tenure review in 2019:

> a.   26 out of 26 early tenure reviews resulted in promotions.
>
> > i.   24 of the early tenure reviews had been for male assistant professors
> > – a statistically significant disparity in applying between them and
> > their female peers.
>
> b.   Three out of three early tenure reviews for those who had received a
> probationary extension resulted in promotions.
>
> > i.   All three had been for male assistant professors.

22.   In other words, from 2009 through 2018, professors in Dr. Nikolova's situation had

been 100% successful in obtaining promotions. In 2019, Dr. Nikolova became the first person to

be denied promotion from either group – professors up for early reviews and professors up for early reviews after probationary extensions.

24.   Among both groups, Dr. Nikolova's most obvious differentiating trait was her gender and her pregnancies.[4]

G.   Dr. Nikolova's Probability of Promotion: Committee Voting

24.   From 2009 to 2018, early tenure reviews invariably resulted in successful tenure outcomes (26 out of 26 before Dr. Nikolova's review in 2019). There are many factors that review committees consider when assessing assistant professors for tenure. At present, I have incomplete data regarding the publications, conference proceedings, teaching records, and funding shares for the assistant professors.

25.   I did, however, have access to the voting outcomes for each candidate from their respective departmental budget councils and college advisory committees. Each voting council/committee not only had access to the complete performance records of the candidates, but also would have had additional holistic/intangible knowledge about each candidate. Thus, I used the voting outcomes as a proxy for the holistic performance records of the candidates.

26.   Prior to Dr. Nikolova's promotion denial in 2019, the following facts existed regarding voting outcomes and promotion outcomes (for tenure reviews from 2009 to 2018):

Table 3: 100% CAC In-Favor Votes and Promotion Probability

Gender	Count	100% CAC In-Favor Vote	<100% CAC In-Favor Vote
Promoted	73	62	11
Denied	13	0	13

Note: Data are from tenure reviews in the 10 years prior to Dr. Nikolova's review. CAC stands for College Advisory Committee. Dr. Nikolova received a 100% CAC in-favor vote in 2019 and became the first assistant professor to be

---

[4] Statistical tests on these specific populations would be mathematically impossible. Neither scenario – early tenure reviews nor early tenure reviews after probationary extensions – yielded a promotion denial. To statistically test differential impact in promotions, we would need data on promotions *and* promotion denials. Before Dr. Nikolova's tenure review in 2019, these populations only received promotions.

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denied promotion with that voting distinction.

    a. 13 assistant professors were denied promotions.

    b. The average in-favor departmental budget council vote of the denied professors was 67%.

        i. Dr. Nikolova's departmental budget council vote was 97% in her favor.

    c. The average in-favor college advisory vote of the denied professors was 43%.

        i. Dr. Nikolova's college advisory vote was 100% in her favor.

    d. Not a single professor that had received 100% in-favor votes from the college advisory committee was denied promotion. There were 62 such professors.

        i. In 2019, Dr. Nikolova became the first professor with 100% in-favor votes from the college advisory committee to be denied tenure.

27.   Given this background, I ran a regression model on the relationship between voting outcomes and promotion outcomes. Regression models make predictions based on characteristics. In this case, I used voting outcomes to estimate how they influenced promotions. I then applied the estimated influence of voting outcomes (in statistics, the coefficient) to Dr. Nikolova's voting outcome to estimate her probability of promotion.

28.   To summarize a few key takeaways from the model:

    a. Dr. Nikolova's predicted probability of promotion was 96.3%.

    b. Dr. Nikolova's predicted probability of promotion was higher than all 13 assistant professors who were denied promotion.

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    c.   The average predicted probability of promotion for denied professors was

        40.1%

    d.   Dr. Nikolova's predicted probability of promotion was higher than 21

        assistant professors who received promotions.

H.   Conclusions

29.   I conclude that female assistant professors suffer statistically significant disparities in their ability to go up for early reviews at UT. I also conclude that Dr. Nikolova had a near-100% probability of promotion given her voting outcomes and suffered a statistically unexplainable promotion denial.

_____

Shane Thompson, Ph.D.

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II.   APPENDIX

A.   Curriculum Vitae

SHANE THOMPSON, PH.D.

EDUCATION

Ph.D. in Economics, University of Arizona
(Fields: Labor economics and econometrics)

M.A. in Economics, University of Arizona

M.S. in Economics, Utah State University

B.A. in Economics and Finance, Utah State University
(*Summa Cum Laude*)

TEACHING APPOINTMENTS

Johns Hopkins University, Krieger School of Arts & Sciences   Jan 2018 – Present
Econometrics (Graduate level)

University of Colorado Denver, Business School   Aug 2018 – Dec 2019
Economics for Managers (Executive MBA Program)

American University, School of Education, Teaching, and Health   Aug 2014 – Dec 2014
Qualitative and Quantitative Research Strategies (Graduate level)

University of Arizona, Eller School of Management   Jun 2010 – Dec 2012
Principles of Economics, Intermediate Microeconomics, Economics of Sports

EXPERT WITNESS ENGAGEMENTS

1. [report] *Local 3621 et al v. City of New York*. United States District Court, S.D. New York.
    Index # 18-cv-4476. Submitted January 18, 2021.

2. [declaration] *SEIU 775 v. State of Washington Department of Social and Health Services*.
    Superior Court of the State of Washington for the County of Thurston. Case No. 18-2-05584-
    34. Submitted October 9, 2020.

3. [report] *Stephenson v. Family Solutions of Ohio, Inc.* United States District Court Northern
    District of Ohio Eastern Division. Case No. 1:18-cv-02017. Submitted September 30, 2020.

4. [deposition] *Heredia v. Pueblo School District 60.* District Court for the District of Colorado.
    Civil Action No. 1:19-cv-01734-PAB-KMT. Taken September 1, 2020.

5. [report] *Hoang v. Microsemi Corporation*. District Court for the Southern District of Texas
    Houston Division. Civil Action No. 4:19-cv-01971. Submitted September 1, 2020.

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6. [supplemental report] *Heredia v. Pueblo School District 60.* District Court for the District of Colorado. Civil Action No. 1:19-cv-01734-PAB-KMT. Submitted June 29, 2020.

7. [report] *Heredia v. Pueblo School District 60.* District Court for the District of Colorado. Civil Action No. 1:19-cv-01734-PAB-KMT. Submitted May 6, 2020.

8. [declaration] *Sampson v. International Union of Operating Engineers Local 14 and 14B*, United States District Court Eastern District of New York. 19 CV 4946-LDH-SMG. Submitted April 17, 2020.

9. [report] *Fuller v. Wholesale Electric Supply Company of Houston, Inc*. District Court of Harris County, Texas. Envelope No. 27966704. Submitted October 30, 2019.

10. [report] *Willis v. Cleveland County Public Health Department/Animal Control Services Division*, United States District Court for the Western District of North Carolina, Case No. 1:18-cv-292. Submitted August 5, 2019.

11. [declaration] *United Probation Officers Association v. New York City Department of Probation*. Submitted June 5, 2019.

12. [deposition] *Nessler v. City of Grand Junction Colorado,* United States District Court District of Colorado, Civil Action No. 1:18-CV-01498-RPM. Taken May 29, 2019.

13. [testimony] Motions hearing for *People of the State of Colorado v. Todd Kenneth Grudznske*, District Court of Jefferson County Colorado, Case No. 2018CR3960. Given May 10, 2019.

14. [report] *People of the State of Colorado v. Todd Kenneth Grudznske*, District Court of Jefferson County Colorado, Case No. 2018CR3960. Submitted April 29, 2019.

15. [report] *Nessler v. City of Grand Junction Colorado,* United States District Court District of Colorado, Civil Action No. 1:18-CV-01498-RPM. Submitted April 1, 2019.

16. [report] *Hester, et al. v. State of Washington,* King County Superior Court No. 17-2-30733-5 SEA, (Matter No. 10782427). Submitted September 28, 2018.

17. [report] *In Re Doria/Memon Disc. Stores Wage & Hour Litig.,* United States District Court Southern District of New York, Civil Action No. 14-cv-7990. Submitted July 28, 2018.

18. [report] *Hester, et al. v. State of Washington,* King County Superior Court No. 17-2-30733-5 SEA, (Matter No. 10782427). Submitted June 25, 2018.

PUBLICATIONS
JOURNAL ARTICLES

1. Thompson, Shane. 2017. "College Advising and Gender." *Economic Inquiry* 55 (2):1007-1016. doi: 10.1111/ecin.12421.

GOVERNMENT REPORTS

Precision Analytics Co, LLC
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2. Thompson, Shane, Laura Hoesly, and Natalie Patten. 2015. *Administrative Data Research and Analysis Project (ADRA) Federal Agency Targeting Inspection (FEDTARG) Program Study Final Report*. Washington, DC: U.S. Department of Labor, Chief Evaluation Office. Contract No. DOLU139634581

3. Thompson, Shane, Natalie Hinton, Laura Hoesly, and Lauren Scott. 2015. *Veteran and Non-Veteran Job Seekers: Exploratory Analysis of Services and Outcomes for Customers of Federally-Funded Employment Services*. Washington, DC: U.S. Department of Labor, Chief Evaluation Office. Contract No. DOLJ139634665.

WHITE PAPERS

4. Seiler, Eddie, George Cave, China Layne, and Shane Thompson. 2017. *What Would Have Happened: Experimental and Quasi-Experimental Methods for Program Evaluation*. Summit, accessible at summitllc.us.

WORKING PAPERS

5. Thompson, Shane. in preparation. *The Essential Econometrics Toolkit for Forensic Economists*.

6. Thompson, Shane. in preparation. *Gender, Race, and Competition: Driving Speed with Randomized Passengers*.

7. Thompson, Shane, and Marc Verduzco. in preparation. *Can a Large Increase in Public School Expenditures Improve Student Outcomes? Evidence from a Natural Experiment*.

8. Thompson, Shane, Natalie Patten, and Dimitrios Zampoulakis. in preparation. *Daylight and Crime*.

CONFERENCE PRESENTATIONS and EXECUTIVE BRIEFINGS

1. Johns Hopkins University Advanced Academic Programs Faculty Professional Development Summit, *7 Habits of Highly Effective Online Instructors*, October 2020

2. Western Economic Association, *Can Race Explain Some of the Gender Competition Gap? Evidence from a Slugging Experiment*, Vancouver, BC, June 2018

3. American Association for Public Opinion Research, *Natural Language Processing* (with Avinash Tamby and Tim Book), Denver, Colorado, May 2018.

4. U.S. Department of Labor, EBSA, Risk Modeling, Washington, DC, September 2016

5. NACADA Annual Conference, *College Advising and Gender*, Las Vegas, October 2015

6. U.S. Department of Labor, EBSA, *Risk Modeling*, Washington, DC, September 2015

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7. National Association for Welfare Research & Statistics, *Federal Workplace Safety: The FEDTARG Program*, Atlanta, August 2015

8. U.S. Department of Labor, CEO, ETA, and VETS, *Veteran and Non-Veteran Job Seekers: An Exploratory Analysis*, Washington, DC, January 2015

9. U.S. Department of Labor, EBSA, *Risk Modeling*, Washington, DC, September 2014

10. U.S. Department of Labor, CEO, ETA, and VETS, *Veteran and Non-Veteran Job Seekers: An Exploratory Analysis*, Washington, DC, April 2014

11. Midwest Economics Association, *Out-of-School-Time Programs and Disadvantaged Schools*, Chicago, March 2014

12. 21st Century Academic Forum, *Out-of-School-Time Programs and Disadvantaged Schools*, Boston, March 2014

13. U.S. Department of Labor, CEO, ETA, and VETS, *Veteran and Non-Veteran Job Seekers: An Exploratory Analysis*, Washington, DC, October 2013

14. UCLA, *Teaching Demonstration*, April 2013

15. University of Texas at Tyler, *Research Agenda and Teaching Demonstration*, April 2013

16. Northern Kentucky University, *Research Agenda and Teaching Demonstration*, February 2013

17. University of Wisconsin-Milwaukee Seminar Series, Funding Shocks to Public Schools and Student Outcomes, January 2013

18. Western Economic Association, *College Advising and Gender*, San Francisco, June 2012

19. Midwest Economics Association, *Funding Shocks to Public Schools and Student Outcomes*, Chicago, March 2012

20. Western Economic Association, *Funding Shocks to Public Schools and Student Outcomes*, San Diego, June 2011

TRAININGS CONDUCTED

21. Houston Bar Association Labor & Employment Law Section, *Using Statistics to Enhance Your Legal Strategy*, Houston, October 2018

22. Conference of California Bar Associations, *Statistics for the California Bar Association*, San Diego, September 2018

23. Johns Hopkins University Advanced Academic Programs Faculty Professional Development Summit, *Teaching Technical Material to Non-Technical Audiences*, Washington DC, November 2017

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24. US Department of Labor, EBSA, *Training for Regional Offices*, New York, Miami, Atlanta, Maryland, August – September 2016

25. Summit Consulting, *Introduction to Program Evaluation: Measuring Impacts and Identifying Gaps*, Washington DC, September 2015

PROFESSIONAL MEMBERSHIPS

American Economic Association, American Finance Association, Western Economic Association, National Association of Forensic Economics

JOURNAL REVIEWER

Journal of Human Resources, Journal of Economic History, Population Review

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B.   Materials Relied Upon

Description	Source
Tenure decisions for the College of Engineering from 2009 through 2020	*Probationary, Tenure Data.xlsx* (provided by counsel)
Report prepared by Dr. Peter Glick on stereotyping and bias	*Report Nikolova University of Texas 2021.pdf* (provided by counsel)

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UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

EVDOKIA NIKOLOVA,   *
     Plaintiff,   *
                                     *   CIVIL ACTION NO.
     v.   *   1:19-CV-00877
                                     *
UNIVERSITY OF TEXAS AT AUSTIN   *
     Defendant,   *

****

              ORAL AND VIDEOTAPED DEPOSITION OF
                    SHANE THOMPSON, Ph.D.
                       JUNE 22, 2021

****

     THE ORAL AND VIDEOTAPED DEPOSITION OF SHANE

THOMPSON, Ph.D., produced as a witness at the instance

of the Defendant, and duly sworn, was taken in the

above-styled and numbered cause on June 22, 2021, from

9:05 A.M. to 10:15 A.M., before Brian Christopher,

Online Notary Public in and for the State of Texas,

reported remotely by electronic reporting and

transcription, pursuant to the Federal Rules of Civil

Procedure and the provisions stated in the Record or

attached hereto.

2

```
1          APPEARANCES
   FOR THE PLAINTIFF:
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4      (T) 512.474.7563
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          Robert@NotzonLaw.com
6
              AND
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      CREWS LAW FIRM, P.C.
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9      (T) 512.484.2276
10     By: Robert W. Schmidt, Esq.
          schmidt@crewsfirm.com
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   FOR THE DEFENDANT:
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      OFFICE OF THE ATTORNEY GENERAL OF TEXAS
13     General Litigation Division
       P.O. Box 12548, Capitol Station
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      By: Benjamin Dower, Esq.
16       benjamin.dower.oag.texas.gov
17          AND
18       Amy Hilton, Esq.
         amy.hilton@oag.texas.gov
19
20  ALSO PRESENT:
21     Laura Barbour, In-House Assistant General
   Counsel, UT Austin
22
       Jody Hughes, Associate Vice President of Legal
23  Affairs, UT Austin
24
25
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3

4

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1       THE REPORTER:  This is a videotape
2  deposition of Shane Thompson, in the matter of
3  Nikolova v UT Austin.   We are located at PO Box
4  245, Manchaca, Texas 78652.  We are on the Record,
5  the time is 9:05 am.  My name is Brian Christopher,
6  with Integrity Legal Support Solutions.
7       Would all persons present please
8  introduce themselves, for the record, starting with
9  the Plaintiff's counsel?
10      MR. NOTZON:  Robert Notzon and Bob
11 Schmidt for Dr. Nikolova.
12      MR. DOWER:  And Benjamin Dower and Amy
13 Hilton for University of Texas at Austin.
14      THE REPORTER:  Okay.
15      Dr. Thompson, would you raise right hand,
16 please?
17       SHANE THOMPSON, Ph.D.,
18   having been duly sworn, testified as follows:
19      THE REPORTER:  You may proceed.
20      MR. DOWER:  Okay, before we get going,
21 the parties have some stipulations that I will
22 briefly read into the record.
23      First, the parties stipulate that this
24 deposition may be taken remotely, via Zoom.
25      The parties stipulate that, "objection
```

5

```
1  form" is sufficient to preserve objections to the
2  form of the questions and will be used in lieu of
3  the more specific form based objections.
4       The parties stipulated that all
5  objections, except as to the form of the question
6  or answer, are reserved until trial.
7       And I think, in light of our -- the fact
8  that Brian is making the recording, I don't need
9  any more stipulations.
10      MR. NOTZON:  I agree.
11      MR. DOWER:  Okay.  In that case we'll get
12 started.
13         DIRECT EXAMINATION
14 BY MR. DOWER:
15   Q.  Dr. Thompson, thank you so much for being
16 here.  Could you start out just by saying your name
17 for the Record?
18   A.  Sure.  Shane Thompson.
19   Q.  And you understand Dr. Thompson that
20 you're under oath here today?
21   A.  Yes.
22   Q.  And then, notwithstanding the fact that
23 we're all here via Zoom, it's the same oath that
24 you would be, you know, if we were in a court with
25 a judge?
```

Shane Thompson - 6/22/2021

6

1   A. Yes.
2   Q. Okay. Have you ever been deposed before?
3   A. Yes.
4   Q. How many times if you will recall?
5   A. I believe it's twice.
6   Q. Okay. And are those the two depositions
7 that are mentioned in your, I think, the C.V.
8 attached to your report?
9   A. Yes.
10   Q. Okay. So that would be Nessler v. City
11 of Grand Junction Colorado and Heredia v. Pueblo
12 School District 60?
13   A. That's correct.
14   Q. Okay. Well then you probably know some
15 of the sort of the rules or tricks of the trade
16 that I'm going to lay out, but just in case. So
17 just to ensure that we have a clean stenographic
18 record, I'm going to try to -- or I'll ask you to
19 let me finish the question before you start
20 answering so we don't talk over each other, and I
21 will in turn try very hard not to cut you off or
22 interject before you're finished speaking. Do we
23 have an agreement that we'll each try not to talk
24 over each other?
25   A. Yes.

7

1   Q. And that was perfect right there. I know
2 you were eager to jump in with the yes and you
3 waited beautifully. And because we're creating a
4 transcript, you know, the form of answers need to
5 be verbal and in a way that's unambiguous. So
6 things like uh-hu or uh-huh in which the verbal
7 intonation let's the person understand whether it's
8 affirmative or negative on a piece of paper those
9 look the same. So for answer I would ask that you
10 try to keep them to things that are verbal and
11 unambiguous on a transcript, do we have an
12 agreement on that?
13   A. Yes.
14   Q. Perfect. If you don't understand the
15 question that I'm asking, I promise I'm not trying
16 to trick you, it's probably because I just asked a
17 confusing question. So if you ever don't
18 understand the question I'm asking, can we have an
19 agreement that you'll ask me to rephrase or to
20 clarify the question? Do we have an agreement on
21 that?
22   A. Yes.
23   Q. Perfect. And so then if you do answer
24 the question, may I assume that you understood the
25 question?

8

1   A. Yes.
2   Q. Okay. And I'm not -- this is just for
3 the record, I'm not trying to get invasive -- but
4 are you on any medication that would affect your
5 ability to accurately or truthfully answer my
6 questions?
7   A. No.
8   Q. Okay. I frankly don't think this is
9 going to go very long, but we may take breaks. And
10 if there's any time you need a break, just let me
11 know. The only thing I would ask is that, if
12 there's a question pending, that you go ahead and
13 answer the question before we take a break. Do we
14 have an agreement on that?
15   A. Yes.
16   Q. Okay. Perfect. Okay. Well then, I want
17 to start out just by briefly asking you a little
18 bit about what you did to prepare for this
19 deposition if anything. Did you do anything to
20 prepare for this deposition today?
21   A. Looked over my reports. Had probably a
22 10-minute call with Robert.
23   Q. Okay.
24   A. But that's it.
25   Q. Okay. So you looked over your report,

9

1 did you look over any other documents?
2   A. I skimmed through the expert report of I
3 believe Dr. Deere and then Dr. Glick.
4   Q. Okay. Any other documents you reviewed?
5   A. Yes. Let me see what that is. That's a
6 -- I was sent over Exhibit 38, I don't know how to
7 refer to these, but it was kind of procedure in
8 general guidelines for assistant to associate
9 professor promotions.
10   Q. Okay. Any other documents you reviewed?
11   A. That's it.
12   Q. Okay. So how long would you say that you
13 spent preparing in total?
14   A. An hour.
15   Q. Okay. When you were generating your
16 report, other than Robert Notzon and Bob Schmidt,
17 did you talk with anyone else to prepare that
18 document?
19   A. No.
20   Q. Okay. All right. I'm going to test my
21 ability to upload a document. Let's see. So in
22 the chat now, I'm uploading the revised version of
23 your report, let me know if you see that?
24   A. I do.
25   Q. Okay. And we'll mark that as Defendant's

10

1 Exhibit 1.
2   MR. DOWER: And Robert were you able to
3 access that?
4   MR. NOTZON: Yeah.
5   MR. DOWER: Okay.
6   MR. NOTZON: You didn't want to just keep
7 going in sequential order, so we don't have double
8 numbers?
9   MR. DOWER: I'm fine with that if you
10 know what the next number is?
11   MR. NOTZON: It is. It's 67.
12   MR. DOWER: Okay. Well then strike the
13 Exhibit 1, we'll call this Exhibit 67. Okay.
14 BY MR. DOWER:
15   A. And do I click on this or do you --
16   Q. Yes.
17   A. Okay.
18   Q. If you click on it -- I mean, it's
19 nothing you haven't seen before since you authored
20 it. But yeah, if you want to confirm by
21 downloading it, if you click to open or you hit the
22 three ellipses, I believe you'll have the option to
23 open the file.
24   A. Okay. Let's see. It saved it for me.
25 Click to open. Okay. All right.

12

1 materials that your report and your opinions are
2 based on. And in the very first paragraph of the
3 introduction, it says, "That the preliminary
4 calculations in this report are based on data and
5 information provided in Appendix B." Is that an
6 accurate statement?
7   A. Let me go see Appendix B real quick.
8   Q. Yeah. Go for it. And it's -- oh it
9 doesn't look like the pages are numbered after
10 that.
11   A. Right. Unfortunately. I should have
12 numbered the pages.
13   Q. The second to last page of the PDF if
14 that helps.
15   A. Yes. Yes.
16   Q. Okay. And so Appendix B identifies two
17 documents. One, is the Probationary, Tenure Data
18 excel spreadsheet and then the other is Dr. Glick's
19 report on stereotyping and bias, is that accurate?
20   A. Yeah. That's correct.
21   Q. Okay. And so are there any materials
22 that are not contained -- or that are not those two
23 items I should say, upon which you relied on in
24 generating your opinion in this case?
25   A. No.

11

1   Q. Were you able to get that open?
2   A. Yes.
3   Q. Okay. And will you just confirm for me
4 that Exhibit 67 is the revised version of the
5 report you provided in this case?
6   A. It is.
7   Q. Okay. And I've been told, but I want to
8 clarify with you, that the only difference between
9 the revised version and the original version is
10 that the revised version contains your hourly rate,
11 is that correct?
12   A. That's correct.
13   Q. Okay. And is this a true and accurate
14 copy of your report?
15   A. It appears that it is, yes.
16   Q. Okay. That's not intended as a trick
17 question just nothing jumps out to you as amiss?
18   A. No.
19   Q. Okay. All right. Well most of our
20 conversation today is just going to be going
21 through your report and me asking some clarifying
22 questions about it and about some of your opinions.
23 So I will try to direct you through by reference to
24 paragraph numbers, just for ease of clarity when
25 we're speaking. And I want to start with the

13

1   Q. Okay. So then skipping ahead to the
2 second page of your report, under the purpose of
3 the declaration you identify three things in
4 paragraph 7 that you've been asked to do, is that
5 accurate?
6   A. Yes.
7   Q. Okay. So this says that you've, "Been
8 asked to perform statistical tests and/or provide
9 opinions," and then it lists, you know, sub a, sub
10 b, and sub c. Are there any opinions that you've
11 been asked to provide that aren't encompassed in
12 those three items?
13   A. No.
14   Q. Okay. And I understand that later -- you
15 know, your report elaborates on those three items,
16 so there's elaboration. I'm just trying to make
17 sure that your opinions are basically on sub a, sub
18 b, and sub c.
19   A. Yes.
20   Q. Okay.
21   A. That's correct.
22   Q. And so there aren't any opinions that
23 you've been asked to provide that aren't contained
24 in your report Exhibit 67, is that a fair
25 statement?

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14

1   A. Sorry, can you ask that again?
2   Q. Sure. Absolutely. Basically what I'm
3 asking is that your report contains the entirety of
4 the opinions that you're offering in this case?
5   A. That's correct.
6   Q. Okay. And thank you for asking me to
7 clarify. That's totally welcome.
8   Okay. Well then let's sort of hone in.
9 I'm going to talk about or ask you about each of
10 these opinions sort of one at a time starting with
11 the first one. So your first opinion as reflected
12 in paragraph 7(a) is regarding whether, "There is
13 evidence of different treatment towards female
14 assistant professors, specifically in their
15 prevalence of early tenure reviews." Is that
16 accurate?
17   A. That's correct.
18   Q. Okay. And your opinion, as reflected in
19 paragraph 8 is that, "There is statistically
20 significant evidence of different treatment towards
21 females in their prevalence at UT of going up for
22 early tenure reviews." Is that accurate?
23   A. Yes. That's accurate.
24   Q. Okay. And in that sentence, you use the
25 phrase different treatment. What does different

15

1 treatment mean as you're using it in that sentence?
2   A. So different treatment means that there
3 is a different ability in these assistant
4 professors to be able to go up for early tenure.
5 And then early tenure correlates -- or sorry --
6 early review correlates perfectly to promotions.
7 So the treatment from the department is based on
8 the decision from those early reviews.
9   Q. Okay. And who is making the decision for
10 those early reviews?
11   A. To go up for the early review or to -- so
12 it's my understanding that the professors make the
13 decision to go up early, the decision to grant
14 tenure in that early review is obviously the
15 University's.
16   Q. Okay. So honing in then on the
17 professor's decision to go up early, who is the
18 person or persons that you're saying are engaged in
19 the different treatment?
20   A. The professors themselves -- maybe I need
21 that question rephrased.
22   Q. Sure. Well so if it's the individuals --
23 individual professor's decision that they would
24 like to put their tenure case up early, then -- and
25 your opinion is that there's a different treatment,

16

1 I'm trying to identify the actor who is engaged in
2 the different treatment. Is it the -- is it that
3 each individual professor when they decide whether
4 they want to go up early that they are engaged in
5 the different treatment?
6   A. No. So let me zoom out a little bit.
7   Q. Yeah.
8   A. So they have the decision themselves to
9 be considered for early tenure review.
10   Q. Right.
11   A. However, they go up based on their
12 ability to get tenure, which I believe that
13 decision isn't made in a vacuum. In other words,
14 if someone has -- if an assistant professor had
15 shown up and they're in their first year at UT and
16 they may say, "Oh, wow everyone who goes up early
17 gets granted tenure," before 2019. Then maybe in
18 their first year they would say, "I'm going to go
19 up early for tenure," it correlates perfectly to
20 getting promoted. I don't believe that, that
21 decision rests solely on the assistant professors
22 to go up early.
23   Q. And what is that conclusion based on?
24   A. I would say that I don't know the nuances
25 of how this decision is made. I don't believe that

17

1 professors make that decision on their own whether
2 to go up early or not.
3   Q. And what I'm asking is, what is that
4 belief based on?
5   A. I suppose that's my own belief that a
6 professor doesn't make that decision on their own
7 to go up early.
8   Q. Okay. And so then to return to my
9 question what is the treatment at issue here?
10   A. So I suppose that it's in two parts.
11 Kind of like I explained before where they're going
12 up early, that decision rests on the professor and
13 I believe guidance that they're getting from their
14 advisory committee about kind of the
15 appropriateness of going up early. And then
16 everybody who goes up early, receives tenure. And
17 so going up early equals tenure, prior to the year
18 that Dr. Nikolova goes up. And so the treatment
19 from the department is through that mechanism where
20 going up early equals tenure and very few female
21 assistant professors go up early.
22   Q. Okay. So is it possible -- well first of
23 all, all of this is based on -- let me rephrase.
24   You've never spoken to a faculty member at UT
25 about this process, correct?

18

1   A. I have not.
2   Q. And you haven't reviewed any deposition
3 transcripts in this case, correct?
4   A. That's correct.
5   Q. Okay. So all of this, what you're
6 describing, is effectively your supposition from
7 talking with, I guess, Plaintiff's counsel?
8   A. Yes. I guess you could say talking with
9 Plaintiff's counsel. I don't think it makes any
10 sense that an assistant professor would go up early
11 without some influence from the Department.
12   Q. And in Dr. Nikolova's case the Department
13 was very supportive of her, is that your testimony,
14 or your understanding?
15   A. I don't have access to what they
16 suggested. My assumption is that she had contact
17 or advice from the Department. But again, I
18 haven't reviewed any documents or advice they may
19 have given her.
20   Q. And earlier you said that people who went
21 up for tenure early all of them got tenure?
22   A. Yes. Prior to Dr. Nikolova's tenure
23 review, I believe it was in 2019, I may not have
24 got that year correct.
25   Q. And if someone went forward and I said I

19

1 would like to go up early, and they were advised we
2 don't think your case is strong enough to merit
3 going up early, then they may not have put their
4 proverbial hat in the ring in terms of going up, is
5 that -- is that a fair statement?
6   A. I believe that could be correct.
7   Q. Okay.
8   A. I don't know.
9   Q. Okay. But there is a self-selection
10 process going on here in terms of who decides to go
11 up for tenure early?
12   A. Absolutely.
13   MR. NOTZON: Objection, form.
14 BY MR. DOWER:
15   A. I would say my supposition is that if --
16 well I'll stop there actually.
17   Q. All right. Let me move on to table 1
18 which is directly below paragraph 8. And I want to
19 make sure I understand what the data in this table.
20 I think I do, but I'll walk you through it to make
21 sure I understand. So first of all, this
22 identifies that there are 65 male assistant
23 professors who went up for tenure from 2009 through
24 2018. Is that correct?
25   A. That's correct.

20

1   Q. Okay. And that's the number in the top
2 left, the first, I guess, data entry in the top
3 left?
4   A. Yes.
5   Q. Okay. And this is -- or is this male
6 assistant professors in the Cockrell School of
7 Engineering?
8   A. I believe that is the case. I could --
9 yes. Yes. That is correct.
10   Q. Okay. And of those 65 male assistant
11 professors, 24 went up early?
12   A. That's correct.
13   Q. Okay. And so that's where you get the 37
14 percent statistic under percent early review?
15   A. Yes. Correct.
16   Q. And then you've got your fraction there
17 in parenthesis, 24 over 65?
18   A. Yes.
19   Q. Okay. And so then similarly we've got 21
20 female assistant professors who went up for tenure
21 from 2009 to 2018, correct?
22   A. Yes.
23   Q. Okay. And of those 21 who went up for
24 tenure, two of them went up early?
25   A. Correct.

21

1   Q. Okay. And that's where you get the 10
2 percent statistic, it's a little bit -- I think
3 it's a little bit less than that, but it's 2 out of
4 21?
5   A. Yes.
6   Q. Okay. And one of those two was Dr.
7 Nikolova?
8   A. No.
9   Q. No.
10   A. This is pre Doctor Nikolova.
11   Q. Okay. So if we added her, I guess it
12 would be 3 out of and the denominator would
13 presumably change for how ever female professors
14 went up for a year?
15   A. Yeah. And it would also add in the
16 assistant professors who went up in her year as
17 well, so those numbers could have changed.
18   Q. Right. So then going back to paragraph 8
19 in the report, it says this disparity in early
20 tenure reviews between male and female assistant
21 professors is statistically significant at the 5
22 percent level. Is that correct?
23   A. That's correct.
24   Q. Okay. And when an outcome is
25 statistically significant that means that it's

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22

1 basically unlikely to occur by chance?
2   A. Yeah. That's correct.
3   Q. It's sort of a lay person's sort of
4 definition?
5   A. Yes.
6   Q. And it's not necessarily impossible, it's
7 just unlikely?
8   A. That's correct.
9   Q. And so then you basically conclude from
10 that, that the disparity in early tenure reviews
11 between male and female assistant professors was
12 unlikely to happen by chance?
13   A. That's right.
14   Q. Okay. And do you have an opinion about
15 what caused the disparity in early tenure reviews
16 between male and female assistant professors?
17   A. I don't have an opinion. I guess, the
18 cause of why so few females may have gone up and so
19 many males may have gone up, there's nuances there
20 that I don't fully understand.
21   Q. And you would agree that causation and
22 correlation are not the same thing?
23   A. That's right.
24   Q. And so just to use, kind of a silly
25 example, roosters crow a little bit before dawn and

23

1 then the sun comes up but, you know, we know that
2 roosters don't cause the sun to go up?
3   A. Right.
4   Q. Right. You know, people shop a lot when
5 it's cold because of the winter holidays, but cold
6 doesn't necessarily cause people to buy more stuff?
7   A. Right. Right.
8   Q. So sometimes there can be other variables
9 that explain the correlation?
10   A. Yes.
11   Q. And so here the variables that you looked
12 at were gender, early tenure decisions, and total
13 tenure decisions, correct?
14   A. Yes.
15   Q. And so would you agree that a
16 statistically significant disparity just by itself
17 doesn't necessarily tell us what caused the
18 disparity?
19   A. Yes.
20   Q. All right. I want to skip ahead to
21 paragraph 15 which is now out of the summary and
22 into the body of this section of your opinion. And
23 I'll give you a second if you need it to get to
24 paragraph 15. Are you there?
25   A. Yeah. I'm there.

24

1   Q. Okay. Perfect. So in paragraph 15, the
2 sort of italicized section, you say that your
3 statistical test is predicated on the question, "If
4 female and male assistant professors were equally
5 capable to go up for early tenure reviews, what is
6 the probability that male assistant professors
7 would go up early four times more often than female
8 assistant professors?" Did I -- did I recite that
9 correctly?
10   A. Yes.
11   Q. Okay. And so in this sentence can you
12 tell us what you mean by "equally capable of going
13 up for early tenure reviews"?
14   A. Sure. So the assumption of this question
15 is that female and male assistant professors are
16 otherwise equal. So there's a lot of unobservable
17 characteristics and qualifications of, you know.
18 Of the 86 professors, we're assuming that there's
19 no material difference between a male and a female
20 assistant professor in those things that we don't
21 observe.
22   Q. And some of those -- some of those
23 metrics might be observable in terms of -- you
24 know, there should be -- there could be some
25 quantitative measures of things like publications

25

1 or funding, things like that, correct?
2   A. Yes.
3   Q. But it's also really hard to run a sort
4 of analysis that computes all that because
5 professors' statistics aren't -- or I shouldn't say
6 statistics -- but that quantitative data doesn't
7 necessarily lend itself to an apples to apples
8 comparison, fair?
9   A. Yeah. I think that's correct.
10   Q. Right. Like the number of publications,
11 what's considered good in one field might be kind
12 of weak in another, things like that?
13   A. Yes.
14   Q. And what is considered, you know, good
15 sufficient funding or robust funding for research,
16 you know, if you just look at the number, you know,
17 what's considered robust in one field could be
18 pretty weak in another depending on all the
19 particulars?
20   A. Yes.
21   Q. Okay.
22   A. That's correct.
23   Q. Would you agree that your analysis also
24 assumes that the assistant professors are equally
25 interested in going upward?

26

1   A. Yes.
2   Q. And so, if gender correlated with
3 something like risk aversion at least in a
4 professional context, that could be an explanation
5 for the statistical disparity?
6   MR. NOTZON: Objection, form.
7 BY MR. DOWER:
8   A. It could be an explanation, but there's
9 no way to prove that I suppose.
10   Q. And similarly there's not really an easy
11 way to disprove that is there?
12   A. No. Without further data, no.
13   Q. Okay. Want to move on then to your
14 second opinion. And so I'm going to take a quote
15 from paragraph 7(b) but it's -- I don't think it's
16 a particularly controversial representation. But
17 your second opinion is regarding whether, quote
18 there is, "Evidence of different impact towards
19 female assistant professors who take probationary
20 extensions and go up early." Is that correct that,
21 that's the subject of your second opinion?
22   A. That's correct.
23   Q. Okay. And I'm looking at paragraph 9
24 back in the introduction or rather this summary of
25 opinions. And so in paragraph 9 you say, "There

27

1 were only three assistant professors who went up
2 early after taking probationary extensions." Not
3 including Dr. Nikolova, is that correct?
4   A. That's correct.
5   Q. Okay. And so when you add Dr. Nikolova
6 there were only four assistant professors in the
7 data you reviewed who both took a probationary
8 extension, one or more, and went up early, correct?
9   A. That's correct.
10   Q. Okay. And so you would agree then -- I'm
11 looking at paragraph 10 for this -- that it's
12 mathematically impossible to conduct a statistical
13 test on such a small sample?
14   A. Yes.
15   Q. And so, you know, because you're a
16 statistician who understands those things, you can
17 neither confirm nor disprove whether there was a
18 different impact on female assistant professors who
19 take probationary extensions at UT?
20   A. That's correct.
21   Q. Okay. And so because of that, you were
22 not able to form an opinion on whether there was
23 evidence of different impacts towards female
24 assistant professors who take probationary
25 extensions and go up early?

28

1   A. Yeah. I couldn't form a statistically
2 significant opinion on that matter.
3   Q. Okay. And so going back to sort of our
4 lay person definition of statistical significance,
5 you weren't able to offer an opinion about whether
6 or not those numbers occurred as a result of
7 anything other than just sort of random chance?
8   A. That's correct. And I would say, too,
9 the issue here is sample size. So the ability of a
10 statistician to prove or disprove is inhibited by
11 the sample size. It doesn't, therefore, rule out
12 any possibility. So you rely on the data you have,
13 but being true to your practice and conventions and
14 statistics, you can't pull out statistically
15 significant evidence.
16   Q. Right. And I'll give you a hypo that I
17 think will help demonstrate the point for both of
18 us. If you had a coin and you flipped it once you
19 wouldn't be able to say well is this likely to be a
20 rigged coin or not, because whatever the outcome
21 is, it doesn't tell you anything.
22   A. Right.
23   Q. And even if you flipped it a couple of
24 times, if it landed heads two or even three times
25 in a row, you really wouldn't be able to say with

29

1 confidence, oh this coin must be rigged, because
2 it's just two small of a repetition to be, you
3 know, unlikely to have occurred through just
4 happenstance?
5   A. That's correct.
6   Q. Okay. And that's kind of the -- I know
7 that's a silly example -- but that's kind of
8 demonstrating the idea that we're talking about?
9   A. Yes.
10   Q. Okay. All right. Then I want to just
11 move on to the next opinion, the third opinion.
12 And again, I'm sort of quoting paragraph 7(c) to
13 the extent you want to refer to it. And so your
14 third opinion is regarding whether, and this is
15 where the quote starts, "There is evidence that Dr.
16 Nikolova's denied promotion is statistically
17 unexplainable given the in-favor votes she received
18 from the departmental budget council and college
19 advisory committee." Is that accurate that, that's
20 what your third opinion is about?
21   A. Yes.
22   Q. Okay. And so in that sentence you use
23 the phrase, "statistically unexplainable," can you
24 explain what you mean by what you mean by
25 unexplainable?

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30

1   A. Sure. So when you're testing kind of two
2 populations, in a traditional sense you're saying
3 okay, you've got population A and population B and
4 what if there's a difference between those two, and
5 given that difference, is the disparity between the
6 two groups statistically significant? In this
7 case, we have an instance where Dr. Nikolova
8 received a 100 percent in favor votes from here
9 college advisory committee, and we don't have
10 anybody who has ever been in that population who
11 has been denied promotion.
12   So if I remove Dr. Nikolova from that, I
13 don't even have a second group against which I
14 could compare the disparity, because a second group
15 doesn't exist. So the traditional statistical
16 significance between two groups isn't available to
17 me. So I've said here statistically unexplainable
18 in the sense that, okay, I look at everybody else,
19 I run a statistical model that predicts how likely
20 they are to receive promotions, and then I apply
21 that model to Dr. Nikolova. And so it's not a
22 traditional statistically significant threshold,
23 because that's impossible given that there was no
24 variation in 100 percent vote getters and promotion
25 denials.

31

1   Q. Okay. So if someone got a robust support
2 from the college level committee but then didn't
3 get tenure, with regards to the statistically
4 unexplainable, you would say well that doesn't
5 matter because it's not 100 percent and there's no
6 other data entry in which someone had 100 percent
7 support and did not get tenure?
8   MR. NOTZON: Objection, form.
9 BY MR. DOWER:
10   A. I may need you to rephrase.
11   Q. Okay. Well like in your regression
12 analysis you concluded that there was about a 1 in
13 25 chance that she wouldn't get tenure, right?
14   A. Right.
15   Q. So then that would -- that is explainable
16 in the sense that this could be that 1 in 25
17 scenario, right?
18   A. I suppose it could be explainable in that
19 way. However if we look at traditional statistical
20 thresholds, anything below 1 in 20 is considered a
21 statistically significant result. And so could it
22 have occurred by chance? Nothing is impossible, I
23 suppose, but a statistician would reject the idea
24 that this occurred by chance, because it falls
25 below the traditional threshold.

32

1   Q. Sure. I guess what I'm quibbling with is
2 your use of the phrase unexplainable, because it
3 could be just an unlikely event, right?
4   A. Sure. I think you're saying, am I saying
5 it's statistically impossible and that is not the
6 case --
7   Q. Okay.
8   A. -- right. Yes.
9   Q. I appreciate the clarity. Okay. I think
10 we're on the same page now. So and when you were
11 conducting this analysis, you used voting outcomes
12 by department budget council and college advisory
13 committees as a proxy for the wholistic performance
14 records, is that accurate?
15   A. That's correct.
16   Q. Okay. And so this analysis necessarily
17 assumes that these voting records are a good proxy
18 for performance records?
19   A. Yes. Correct.
20   Q. You know, you didn't presume to actually
21 go into the merits of Dr. Nikolova's application
22 and try to perform, you know, your own separate
23 review on how strong the case was, it's based on
24 the assumption that voting records at the
25 department and college level function as a proxy

33

1 for that type of substantive analysis?
2   A. Yeah. The assumption would be that those
3 in the department know the professors and know the
4 holistic intangibles of the professors would know
5 better than me how qualified they are for
6 promotion. You know, the statistician in me would
7 have liked to include all the data, but for the
8 reasons you mentioned earlier, they're not apples
9 to apples across departments and everything else.
10 And so relying on voting committees was the best
11 proxy for a holistic view of the professors.
12   Q. Okay. Are you suggesting that the
13 department and college advisory committee votes
14 predict an outcome, or cause it, or are you not
15 making that distinction?
16   A. They certainly predict an outcome.
17 Causing an outcome, I wouldn't say that.
18   Q. Okay. And you didn't include whether the
19 dean supported or did not support the tenure case
20 in this statistical analysis, correct?
21   A. That's correct.
22   Q. And that would be, I guess, a binary or a
23 dummy variable that's either effectively like one
24 or a zero either yes or a no. Fair?
25   A. Yes.

34

1   Q.   Okay. And you don't know, sitting here
2 today, what that would do to your analysis if you
3 added that data as another predictor of outcome?
4   A.   Yeah. I don't know.
5   Q.   Okay. And in your analysis of the data
6 you found that 13 assistant professors were denied
7 promotions? And, yeah, if you need to reference
8 the report. I'm sorry, I didn't have a paragraph
9 cite for that. I believe it was paragraph 26(a).
10   A.   Okay. Yes.
11   Q.   Okay. And the average in-favor
12 department budget council vote of those denied
13 professors was 67 percent?
14   A.   Yes. Correct.
15   Q.   Okay. So I want to make sure I
16 understand what that number means. Are you saying
17 that the average department vote of the budget
18 council was that two thirds of the votes on average
19 were in favor of promotion?
20   A.   Yes.
21   Q.   And that's specifically for the
22 population that did not get tenure?
23   A.   Yes. That's correct.
24   Q.   Okay. So even for the people who didn't
25 ultimately get tenure, on average you know, two

35

1 thirds of their budget council supported their
2 case?
3   A.   Yes. I would want to kind of -- my model
4 assumes that it's important that support has
5 degrees. And so support, you know, I suppose could
6 be said is 51 percent. My model assumes that 97
7 percent is different from 51 percent. It's not a
8 binary variable.
9   Q.   And did you review any information about
10 -- that would tell you how the president of the
11 university, you know, used these votes in terms of,
12 you know, whether he or she thinks that -- I guess
13 cares about whether a majority -- supported it or
14 not versus, you know, 100 percent?
15   A.   I did not review anything like that.
16   Q.   Okay. So part of this sort of assumption
17 of your analysis is that what we really care about
18 here is the full gradient of votes, you know, 100
19 percent to 0, and not sort of a well does the
20 majority support them or not?
21   A.   Right. It would be that the dean and the
22 president -- the decision makers view a difference
23 between 95 percent and 55 percent, for example.
24   Q.   I want to ask you a little bit about your
25 regression model. So first of all, you ran a

36

1 regression model on the relationship between voting
2 outcomes and promotion outcomes, correct?
3   A.   That's correct.
4   Q.   What program did you use to run the
5 regression analysis?
6   A.   It's called Stata.
7   Q.   Okay.
8   A.   It's common for economists.
9   Q.   I used Stata for my undergraduate senior
10 thesis.
11   A.   All right.
12   Q.   So I have some old, old personal
13 experience, a little outdated now. What type of
14 regression did you use? Like linear or what?
15   A.   So it's called a logistic regression. It
16 takes a dependent variable, in this case the yes-no
17 of promotion, and predicts that value based on kind
18 of some independent variables. In this case,
19 voting percentage.
20   Q.   Now your report summarizes a few key
21 takeaways from the model, but you didn't actually
22 include the regression analysis results themselves.
23 Was there a reason for that?
24   A.   There wasn't a reason for that. I -- I --
25 there wasn't a reason. I probably could have put a

37

1 table of the regression output.
2   Q.   Do you have that table?
3   A.   I would have it in my kind of log files
4 from the analysis.
5   Q.   Okay.
6   A.   So yes.
7   Q.   Does it include some like fit statistics?
8   A.   Yes.
9   Q.   Okay. And like analysis of variance?
10   A.   Yeah.
11   Q.   Okay. And you would agree with me that
12 those are the types of tests that are typically
13 used by statisticians to determine the
14 trustworthiness of their regression models?
15   A.   Yes. But with some qualification. I
16 assume you're talking about like an r-square or --
17   Q.   Yeah.
18   A.   -- something where we're saying okay how
19 much of the variation are we explaining in our
20 dependent variable if by using our independent
21 variables. And you know, ideally you can explain a
22 fair amount of the variation in your dependent
23 variable, but there's kind of wide ranging
24 disagreement on how important an r-squared is in a
25 model.

38

1   Q. Sure.
2   A. The assumption is that there are a lot of
3 unobservable things that occur in the world. We
4 can't throw the kitchen sink into our models all of
5 the time or really any of the time. And so, you
6 know, having a high goodness of fit measure, higher
7 is better than lower, but how important is high
8 versus low is a subject of debate.
9   Q. Sure. But you would agree that those are
10 the types of metrics that a statistician would want
11 to look at to determine, you know, how, you know,
12 how trustworthy this analysis is, is that a fair
13 statement?
14   A. Yes. It's one of a handful of metrics
15 they would look at for sure.
16   Q. Right. And your report doesn't include
17 any of those metrics?
18   A. It does not.
19   Q. Okay. And so just looking at the report,
20 you know, we can't really judge how strong your
21 regression model was -- or maybe strong is the
22 wrong word -- how trustworthy your regression model
23 was.
24   MR. NOTZON: Objection, form.
25 BY MR. DOWER:

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1   A. I think that's fair. I think there's
2 some statistics that I could have put in here to
3 allow the reader to make a more informed judgement
4 on the model. I think that's true.
5   Q. Okay. And so just knowing the predicted
6 probability of promotion for Dr. Nikolova standing
7 alone is not really sufficient to judge how
8 trustworthy the regression model is?
9   MR. NOTZON: Objection, form.
10 BY MR. DOWER:
11   A. Yes. I would say that's true. And I
12 would also say I can provide these at request.
13   Q. So taking a step back and sort of big
14 picture for this section, so your opinion is
15 basically that it's unlikely that she wouldn't get
16 tenure based on the department level and college
17 level votes?
18   A. Yes.
19   Q. Okay. And you're not offering an opinion
20 about it is that she didn't get tenure, correct?
21   A. That's right. That's right. It's based
22 purely on the votes. My opinion in that matter
23 rests in the predictive capacity of the voting
24 percentages.
25   Q. Give me a five-minute break and we may be

40

1 done.
2   A. Okay.
3   Q. All right.
4   MR. NOTZON: And professor Thompson, just
5 turn off your camera and your microphone, but don't
6 leave the meeting.
7   THE WITNESS: Okay.
8   THE REPORTER: We're going off the Record
9 at 9:56 a.m.
10   (Recess taken from 9:56 a.m. to 10:09 a.m.)
11   THE REPORTER: We're back on the Record,
12 the time is 10:09 a.m.
13 BY MR. DOWER:
14   Q. Dr. Thompson, I thank you for your time
15 and I have no further questions.
16   A. Okay. Thank you.
17   MR. NOTZON: All right. Let me just ask
18 a couple questions.
19   CROSS-EXAMINATION
20 BY MR. NOTZON:
21   Q. Earlier you were asked if you had
22 considered or taken into account the president's
23 decision on tenure in your model. Could you -- did
24 you in fact take consideration of the president's
25 perspective given that the president decides

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1 whether or not the candidate gets tenure?
2   A. Yeah. So the president's decision is
3 explicitly in the model, because the tenure
4 decision is made ultimately by the president. And
5 so that kind of one zero variable accounts for the
6 president's decision in the regression model.
7   Q.   And there was questions of you as to
8 whether or not you included the kind of underlying
9 stats on the stats, as it were, the r-squared
10 numbers and those other measures. Did you do it to
11 try to hide that information from any readers of
12 your report?
13   A. No. Some of it's overkill for a non-
14 technical reader, but I can provide all of those
15 measures from the model.
16   Q. Okay. And it's your intent to provide
17 those?
18   A. Yeah.
19   Q. Okay. And there's a question about
20 whether or not the model is sufficiently -- your
21 opinion is sufficiently supported by your
22 statistical analysis and the model you use. Is
23 that -- what's your opinion on that?
24   A. Yeah. The model that I used is in line
25 with conventional regression modeling. In other

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1 words, you're trying to predict an outcome using
2 predictors of that outcome, and so I've got voting
3 records of the assistant professors from the budget
4 council, from the advisory council, the model rests
5 on those voting records. It's sufficient to
6 predict the probability of promotion and I need to
7 provide the kind of output from that model so a
8 reader can look at those kind of statistics
9 underlying the statistics like goodness of fit.
10 But yes, the model -- the model meets convention
11 for statisticians and econometricians.
12   Q. Okay. And lastly, you were asked if your
13 model could -- I think you testified that you could
14 not confirm that gender or pregnancy was the cause
15 of her not getting -- Dr. Nikolova not getting
16 tenure. But it's also the case that you couldn't
17 rule it out, either, is that right?
18   A. That's correct.
19   Q. Okay.
20   A. So the statistical task that I'm doing
21 identifies statistical anomalies, so kind of
22 unlikely events. The causation or how these things
23 came to be is more on a jury to decide than me.
24   MR. NOTZON: All right. I'll pass the
25 witness.

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1 deadline being whatever my email said -- what did I
2 say?
3   MR. NOTZON: Do we need to still be on
4 the record?
5   MR. DOWER: Oh. We can go off the
6 record. Sorry.
7   THE REPORTER: Mr. Notzon, did you need a
8 copy of the deposition beyond the read and sign?
9   MR. NOTZON: Yes.
10   THE REPORTER: Okay. Perfect. And then
11 we'll send the transcript directly to Dr. Thompson
12 for read and sign?
13   MR. NOTZON: Sure.
14   THE REPORTER: Okay. Understood.
15   MR. NOTZON: And we don't need the video,
16 we don't need that added expense.
17   THE REPORTER: Understood. Okay. We're
18 going to go ahead and go off the record. This is
19 the conclusion of the deposition, the time is 10:15
20 a.m.
21   (Whereupon the deposition was concluded.)
22
23
24
25

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1   MR. DOWER: I think I still have no
2 further questions. So Mr. -- or doctor -- excuse
3 me Dr. Thompson, thank you again for your time.
4   THE WITNESS: Great. Thank you.
5   THE REPORTER: Before we go off the
6 record, can I have counsel please state their
7 orders for the record, if there are any orders?
8   MR. DOWER: Yeah. I regret to say I have
9 to use some generic thing about like -- whatever we
10 usually do. Although I think we were going to do a
11 rush transcript on this. Although given that we
12 only went for an hour on the record, now I'm
13 wondering whether that's really needed because I
14 wouldn't think that this would be particular long
15 transcription to transcribe.
16   THE REPORTER: The normal turnaround --
17 the normal turnaround --
18   MR. NOTZON: We would like the ability to
19 read and sign as well.
20   THE REPORTER: Okay. The normal
21 turnaround would be a two-week turnaround, so it
22 would July the 6th would be the normal turnaround
23 for this. Would you need it before July the 6th?
24   MR. DOWER: Well Robert and Bob, did we
25 have an agreement about the dispositive motion

45

1   CHANGES AND SIGNATURE
2 PAGE/LINE CHANGE   REASON
3 _____
4 _____
5 _____
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15 _____
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Shane Thompson - 6/22/2021

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1        I, SHANE THOMPSON, Ph.D., have read the foregoing
2    deposition and hereby affix my signature that same is
     true and correct, except as noted above.
3
            _____
4           SHANE THOMPSON, Ph.D.
5
     THE STATE OF _____)
6
     COUNTY OF _____)
7
            Before me, _____, on the day
8    personally appeared SHANE THOMPSON, Ph.D., known to me
     (or proved to me under oath or through
9    _____) to be the person whose name
     is subscribed to the foregoing instrument and
10   acknowledged to me that he executed the same for the
     purposes and consideration therein expressed.
11
            Given under my hand and seal of office this
12
     _____ day of_____, A.D. 2011.
13
14          _____
     Notary Public
15   In and for the State of _____
     My commission expires: _____
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1        I further certify that I am neither counsel
     for, related to, nor employed by any of the parties in
2    the action in which this proceeding was taken, and
     further that I am not financially or otherwise
3    interested in the outcome of the action.
         Sworn to by me this 6thday of July, 2021.
4
5
6           _____
            Brian Christopher
7           Notary Public # 12206962
            My Commission Expires 01/05/2025
8           Integrity Legal Support Solutions
            PO Box 245
9           Manchaca, Texas 78652
            (512) 320-8690
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1            UNITED STATES DISTRICT COURT
          FOR THE WESTERN DISTRICT OF TEXAS
2               AUSTIN DIVISION
3    EVDOKIA NIKOLOVA,        *
          Plaintiff,          *
4                    *   CIVIL ACTION NO.
          v.        *   1:19-CV-00877
5                    *
     UNIVERSITY OF TEXAS AT AUSTIN *
6    Defendant,          *
7          REPORTER'S CERTIFICATE
          DEPOSITION OF SHANE THOMPSON, Ph.D.
8            TAKEN ON JUNE 22, 2021
9        I, Brian Christopher, Notary Public in and for
     the State of Texas, hereby certify to the following:
10
          That the witness, SHANE THOMPSON, Ph.D., was
11   duly sworn by the officer and that the transcript of the
     oral deposition is a true record of the testimony given
12   by the witness;
13        That the original deposition was delivered to
     Benjamin Dower.
14
          That a copy of this certificate was served on
15   all parties and/or the witness shown herein on
     _____.
16
          I further certify that pursuant to FRCP Rule
17   30(f)(I) that the signature of the deponent was
     requested by the deponent or a party before the
18   completion of the deposition and that the signature is
     to be before any notary public and returned within 30
19   days from date of receipt of the transcript.  If
     returned, the attached Changes and Signature Page
20   contains any changes and the reasons therefore:
21        (Continued on next page)
22
23
24
25
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EXHIBIT 32

The University of Texas at Austin
University Policy Office

Handbook of Operating Procedures 2-2240

Modified Instructional Duties

The University of Texas at Austin
Executive Sponsor: Executive Vice President and Provost
July 6, 2005

A. Policy Statement

It is the policy of The University of Texas at Austin to modify the classroom instructional responsibilities of faculty members and allow for equivalent academic service when certain personal circumstances prevent them from being able to perform their classroom teaching duties, and when such modifications are found to be in the best interest of the University's instructional programs.

B. Scope

This policy applies to all members of the faculty who are appointed full-time on the instructional budget in a long-session semester.

C. Definition

An **Instructional Budget** is the budgeted account(s) from which faculty salaries for the academic unit(s) are paid.

D. Eligibility Requirements

Faculty members who may apply for modified instructional responsibilities are those who are a principal caregiver of a healthy pre-school child (or children), or who are required to care for or assist a member or members of their immediate family, who although not ill or disabled, needs the help and attention of the faculty member*.

E. Application Requirements

The faculty member must submit a written request for a modification of instructional responsibilities to the appropriate department chair or the dean in non-departmentalized colleges/schools. When possible, the request should be submitted prior to the semester in which the modification is needed. The request must include the following information:

1. A statement explaining the need for modified instructional responsibilities; and

2. A proposal describing the work to be done in place of the applicant's normal classroom responsibilities. This work may involve significant scholarly research, new course development,

curriculum development, or other work done in the best interest of the University's instructional program. The proposal must describe the work in detail, define a work product, and include a method for evaluation of the work by the department chair or dean during the semester.

F. Application Review

The chair or dean to whom the written request for modification of instructional responsibilities is submitted shall review it to determine that:

1. The faculty member is eligible to apply for modified instructional duties;

2. The request contains a sufficiently detailed description of the work to be done in place of the applicant's normal classroom responsibilities, that it defines a work product, and that it states an adequate method for evaluation of the work by the department chair or dean during the semester;

3. The proposal is in the best interest of the department's or the program's instructional program; and

4. The full range of the department's or the program's instructional responsibilities can be met without additional resources during the period of modification.

Within thirty (30) days of receipt of the request, the chair or dean shall submit it and the results of his or her review, in writing, to the Office of the Executive Vice President and Provost. Upon final review, the Provost will communicate his or her written decision to the applicant and the appropriate dean and/or department chair. The decision of the Provost is final.

All teaching load modifications will be granted in compliance with the equivalencies set out in Series 31006, Academic Workload Requirements, of The University of Texas System Board of Regents' Rules and Regulations: **Rule 31006** (http://www.utsystem.edu/board-of-regents/rules/31006-academic-workload-requirements)**.**

G. Period and Scope of Modification

Modifications to instructional duties shall be for the period of one long session semester (i.e., fall or spring). Faculty members whose requests for modified
instructional responsibilities are granted are not removed from the instructional budget and are expected to continue to fulfill all of their other duties as members of the faculty during the period of modification.

For Assistance: Questions regarding this policy should be directed to the Office of the Executive Vice President and Provost at (512) 471-4363 or at its website: **http://www.utexas.edu/provost/** (http://www.utexas.edu/provost/).

*This policy is not intended to apply to situations where use of sick leave is appropriate.

Source: Regents' *Rules and Regulations* **Rule 31006,** (http://www.utsystem.edu/board-of-regents/rules/31006-academic-workload-requirements)

Previously HOP 5.B.1

EXHIBIT 33

Rebuttal to Dean Wood's Assessment

Evdokia Nikolova

Assistant Professor, ECE Dept., UT Austin

In her statement on my promotion case, Dean Wood has recommended "*do not promote*". The recommendation comes as a surprise to me and my department following a strong departmental vote to promote me (32 Yes, 1 No, 2 Abstain at the full professor / Budget Council level and 10 Yes, 0 No, 0 Abstain at the associate professor level); a strong recommendation to promote me by my Department Chair Dr. Ahmed Tewfik and a unanimous vote (7 Yes, 0 No, 0 Abstain) and recommendation to promote me by the College of Engineering Tenure and Promotion Committee. Additionally, my external letters of recommendation are uniformly positive in supporting me for tenure. Several letters are glowing letters, including one stating that I am in the top percentages of successful tenure cases that the MIT professor had ever seen.

Dean Wood bases her negative recommendation on concerns with teaching, funding and early promotion. Below, I provide additional and supporting information that counters each of these concerns.

Teaching

The concerns that Dean Wood raises with my teaching are:

1) A mention in my teaching statement that the TAs were responsible for creating homework and programming assignments.
2) A perceived downward trend in my teaching evaluation scores.
3) A statement that I have not addressed student concerns including one suggesting revision of the syllabus.
4) A concluding statement "*I do not believe that she has taken responsibility for improving her teaching.*"

While at UT, I have taught EE 360C Algorithms (undergraduate), EE 381V Game Theory (graduate) and EE 381V Advanced Algorithms (graduate).

1) Related to teaching EE 360C, my teaching statement states: "*Most handwritten comments on the student evaluations are very positive on my quality of teaching and care for the students[1]; the negative comments are directed mainly toward the TAs and their responsibilities (creating and grading homework and programming assignments).[2]*"

Dean Wood states "*Dr. Nikolova's statement contradicts the philosophy within the Cockrell School that the faculty member is responsible for all aspects of the course, and critical aspects, such as developing assignments, should not be delegated to teaching assistants.*"

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[1] Example of positive student comment: "*Dr Nikolova you were Awesome! You presented material and walked through problems in a patient way that made concepts easy-to-understand. Overall, extremely glad I had you for this course! Also, loved how excited about the material you were!*"

[2] Example of negative student comment: "*The programming assignments were disorganized and graded too hastily by TAs.*"

In reference to Dean Wood's comment, I confirm that I, as the faculty member, am responsible for all aspects of the course.   The wording in my teaching statement was inaccurate and I am hereby revising and offering more detail and clarification on how I have run the course. I taught my section of EE 360C in coordination with another EE 360C section taught by Dr. Pedro Santacruz in Fall 2014 and by Dr. David Soloveichik in Fall 2016 and Fall 2017. I and my fellow instructor co-developed course content and co-supervised the TAs for both sections. Under our instructions and guidance, the teaching assistants draft the programming and homework assignments. On the programming assignment, we provide the goals for the assignment, the topic and the high-level structure of the assignment. From there, in multiple iterations between instructors and TAs the assignment is refined down to an explicit set of tasks. My fellow instructor and I are responsible for the final assignment. On the homework assignments, we provide the goals for the assignment, invite suggestions on sample homework problems from the TAs, and finalize the selection and problem details on each assignment.

In my teaching, I care deeply about the student experience and learning. My personal teaching philosophy is to inspire students and to spark a passion and appreciation for the material I teach. I believe I have been successful as witnessed by the majority positive and several raving student comments about my teaching as well as my excellent peer teaching evaluations, both addressed in 3) below, neither of which are currently included in Dean Wood's Assessment.

2) On teaching evaluations. I paste my teaching evaluations for the three courses (Algorithms, Advanced Algorithms and Game Theory) I have taught at UT below, with comments pertaining to each course after the corresponding table.

EE 360C Algorithms. (undergraduate)

Semester	Enrollment	Course-Instructor Survey responses	Instructor	Course
Fall 2017	69	46	3.9 (3.93)	3.7
Fall 2017	65	46	3.7 (3.72)	3.3
Fall 2016	82	38	3.9 (3.92)	3.4
Fall 2014	61	41	4.0 (3.95)	3.7

The ECE faculty recognizes that EE 360C is **one of the most important courses in the undergraduate ECE curriculum**. A student from one of my Fall 2017 sections (the section Dean Wood bases her "*reduced scores*" comments on) wrote me in an email: "*Your class was one of my favorite classes I've taken at UT as it helped guide me to pursue a career in software engineering. I did extremely well in your class, finishing with an A, and because of your class, I was able to land internships with Amazon and Facebook. I enjoyed the class so much, that I am going to TA Algorithms next semester with Professor Julien.*"

Context of all EE 360C Instructor Ratings

In Appendix A of this rebuttal, I include the EE 360C course instructor survey ("CIS") results for all instructors who have taught the course since 2005 (the ones available on the CIS Results data), to show that EE 360C is a difficult class to teach, and one of the **hardest classes to get high teaching evaluations for**, due to a combination of difficult mathematically rigorous (proof-based) material and it being a **required course** for many ECE students.

In terms of teaching evaluation scores, **I have the 3rd highest scores out of 13** instructors who have taught EE 360C[3], the first two being tenured professors who also happen to be US-born native English speakers. Of the four instructors of EE 360C that have taught the course more than three times, my scores have the smallest variability range of 0.3 compared to ranges 0.6, 0.7 and 1.1 for Dr. Julien, Dr. Touba and Dr. Ghosh respectively. Additionally, my score trend is the second best of these four. (See Appendix A)

My Instructor Rating Trend and Enrollment Effects

My teaching evaluations are essentially a stable trend at a 3.9 average so far (not that I do not want and have not tried to improve that; I sincerely believe that these scores are not reflective of the quality of my instruction and the effort I put into teaching). Note that the class enrollment was the lowest at 61 students when I received 4.0 in Fall 2014 and significantly higher at 81 students when I received 3.9 in Fall 2016. In Fall 2017, I received two different scores of 3.7 and 3.9 for teaching two parallel sections in exactly the same way (and again both of these had higher enrollment than my Fall 2014 section). I note that the 2nd highest-rated instructor, Dr. Nur Touba, has seen a significantly larger variation of scores while teaching two parallel sections in Fall 2015 (3.8 and 4.5) and his lowest 3.8 score corresponds to his greatest enrollment of 87 students.

Furthermore, when rounded to two decimal places instead of one, my instructor ratings in chronological order for Fall 14, Fall 16 and two Fall 17 are: 3.95 (rounded to 4.0), 3.92, 3.72 and 3.93. (If rounded to one digit, they would all be 4!) As one can see there is no notable change in teaching scores, even though the course sizes have increased from by around 13% from first 61 to last 69 students. 3.72 is the single outlier in Fall 17, which comes mainly from 4 negative student instructor reviews, none of which contain written comments or improvement suggestions. And 3 of these 4 students denoted that they expected a course grade below their GPA. I want to emphasize that *statistically one outlier of 3.72 does not denote a trend in performance.*

In Fall 2017, I also happened to be pregnant and suffering from daily morning sickness and fatigue (my second child Elitza was born in June 2018). Despite my personal challenges I maintained the highest level of professionalism and care, teaching an increased teaching load of two sections and introducing new initiatives in EE 360C such as "lunch with the professor" and new weekly problem-solving sections to improve the student experience.

EE 381V Advanced Algorithms

---

[3] From the available CIS Results for EE 360C starting in 2005.

Semester	Enrollment	Survey responses	Instructor	Course
Spring 2017	26	15	3.9	3.5
Spring 2015	22	18/19	4.3	4.1

On the overall instructor rating on the course instructor surveys for my Spring 2017 Advanced Algorithms course, 5 marked Excellent, 5 Very Good, 3 Satisfactory, and 2 Unsatisfactory. A student I was co-advising was taking my class; in the middle of the semester I confronted the student for not making enough progress and stated my intention to stop being the student's advisor. Due to anonymity I cannot know if that student and a friend of the student gave me the two "unsatisfactory" scores in that class. One of the unsatisfactory surveys contained the comment that the class was boring; the other did not include any comments and was also filled out incorrectly (with checkmarks instead of solid circles). In a class of such small size a single disgruntled student can throw off the average. Without one or both of these student scores, my average would have been 4.0 or 4.2 respectively.

Additionally, the number of students increased from 22 to 26 and higher enrollment typically correlates inversely with teaching scores.

EE 381V Game Theory

Semester	Enrollment	Survey responses	Instructor	Course
Spring 2014	16	14	4.1	4.1

This Spring 2019 semester I will be teaching the Game Theory course for the second time at UT Austin. Compared to the Spring 2014 enrollment of 16 students, the Spring 2019 course is currently at capacity of 41 (and 16 are on the waiting list). I feel the quality of my teaching is showing through in the high demand for my elective graduate class offering.

3) Dean Wood writes *"[the students] also provided extensive comments about how the classes could be improved. One undergraduate student even provided a comprehensive recommendation for revising the syllabus for EE 360C. Dr. Nikolova did not address these comments in her teaching statement."*

EE 360C syllabus
I have taken to heart multiple student comments and suggestions for improving the course. The course is team-taught (something I pioneered in 2014 to make the course more consistent and uniform) across multiple sections and multiple instructors teaching the course every year and the syllabus has been fixed among the instructors for many years. Dr. Julien received a teaching award in part for teaching this course with the exact same syllabus, which closely follows a widely adopted and popular textbook, *Algorithm Design* by Kleinberg and Tardos. I adopted the same syllabus and a good portion of Dr. Julien's teaching materials and teaching practices (due to her teaching excellence) while

4

also marking my own stamp, as discussed in this rebuttal and in the Budget Council Assessment.

That is not to say that the syllabus and way of teaching cannot be improved. Note, that student comment came from the last time I taught the course in Fall 2017[4], so I have not had a chance to implement the new comments into my course. And the comment was actually not a suggestion on comprehensively revising the syllabus but rather on reallocating the time spent on the different topics in it. Per the student comment, I continuously rethink the time and speed of covering different material. I care very deeply both about the material in this course, which is part of my core research, and about being able to teach it effectively to students of widely varying mathematical backgrounds—this being one of the biggest challenges in this course.

Addressing student comments about how the class can be improved
I have received 171 course instructor evaluations for EE 360C. I include a summary of student comments in **Appendix B** and in what follows I provide highlights on what actions I have taken to address the student comments that suggest improvements.

One student in Fall 2014 wrote "*use the board more and the class will be more clear*." I have done that and in general have taken every opportunity I can to lecture on the board. Another couple of students have complained of my small handwriting on the board.[5] [6] Consequently, I have made a conscious effort to write bigger on the board and frequently ask students if they can see what I write.

One student from Fall 2016 writes "*The class resources (slides, textbook) are not very helpful, so knowing what to study for tests is very difficult.*" Consequently, I have been reworking the slides to be more clear and I have been posting additional lecture notes. I have also started providing students with sample practice exams to help them better prepare and know what to expect on exams.

One of my biggest changes, which was suggested in a student comment in Fall 2014 [7] was to introduce TA-led problem solving sessions, which I implemented in my third and fourth iterations of teaching the class in Fall 2017 and which has subsequently been adopted by Dr. Julien (the highest rated instructor of this course) in her Spring 2018 section.

As I put my heart into teaching and care deeply about how to enable students to learn better, I am intending to start an independent "math proof club" where students voluntarily go to train in writing proofs, much like they train for a sport, to help them

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[4] CIS results, Fall 2017: p.5 of section 16500.
[5] Student comment from Fall 2017: "*Dr. Nikolova was a great professor but I wish she would write bigger on the boards.*"
[6] Another student comment from Fall 2017: "*The professor is great and always clear about what she teaches. The only flaw is that her handwriting is too small to see.*"
[7] Student comment from Fall 2014: "*This course was very difficult but I thought you were a very good professor. My only suggestion is that in the future I think everyone would really benefit from a weekly problem solving session.*"

gain the necessary skillset that they are required to have but typically do not have in EE 360C.

Negative vs Positive student comments
Out of 219 student reviews in my seven courses taught, I received 65 Excellent instructor reviews versus 11 Not Satisfactory & 2 Very Unsatisfactory [with these 2 being in my first time teaching EE 360C in Fall 2014]. Of these 219 reviews, I also have had 78 students add written comments with 53 of these being Positive (of which 26 were Strongly Positive), with several raving about my excellence as the instructor. Of these 78 written comments, there were 19 Negative instructor related comments (with only 3 of these being Strongly Negative) and 29 course material, TA or instructor improvement suggestions (with about half of these coming along with Positive comments on the same survey). At the time of distributing the surveys, I specifically ask students to suggest improvements in the written comments section, which explains the higher number of such comments and shows my goal to improve the student experience.

Dean Wood's Assessment does not mention any of my positive student comments, which are a vast majority, thus I would like to take the opportunity to quote some of them here:

From Fall 2014: "*Very patient and approachable, encourages students to ask questions & grapple with the material. Very thorough in her explanations and always willing to clarify. Excellent professor!*" [8]
From Fall 2016: "*Dr. Nikolova has been one of the better teachers I've had in my time at UT. The open format of lecture encourages questions and is more useful than only pure lecture….*" Two other students said simply, "*Nikolova is awesome*!" and "*Great lectures*!"
From Fall 2017: "*Amazing professor! Best I've ever had in EE so far. I really liked how she held a lunch where we could get to know her. All Profs should be required to do that. Great class too.*" And another "*Dr. Nikolova, you were awesome! You presented material and walked through problems in a patient way that made concepts easy-to-understand … I loved how excited about the material you were*!" Both of these student comments are from my Fall 2017 Section with instructor score average of 3.72.

Peer teaching evaluations
Dean Wood's Assessment does not mention any of my uniformly positive peer teaching evaluations. Dr. Constantine Caramanis writes: "*Evdokia has a very clear teaching style. She lectures on the board. She has a very organized and therefore effective style, particularly considering the highly technical/theoretical nature of the material.*" Dr. Craig Chase writes: "*Eddie is supremely competent in her field and an excellent lecturer and teacher. If I were a student, I would certainly seek out her classes.*" and additionally "*EE 381V is an excellent class, well run and well taught by an outstanding young professor.*"

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[8] Another student comment from Fall 2014 speaks about me being effective despite that student's predisposition: "*great prof. wasn't looking forward to this class but she made it fun.*"

Keynote talk invitations

A further testimony to my effectiveness as a lecturer is that I have had the rare honor for an assistant professor to be invited to give 3 keynote talks, in Zurich, Switzerland (2014), Athens, Greece (2017) and Montreal, Canada (2017).

Advising and student mentoring

Another aspect of my teaching portfolio is advising students. To supplement Dean Wood's assessment in this category, I provide additional detail that in my 5 years at UT, I have not simply graduated a PhD student, but this student was a very strong one and additionally I have two other PhD students expected to graduate in the next two years.

My first student Ger Yang graduated with a PhD in August 2018. The other four professors on his PhD thesis committee, Dr. Gustavo de Veciana, Dr. Sanjay Shakkottai, Dr. Alex Dimakis and external committee member Dr. Ngoc Tran were impressed and remarked that Ger was extremely strong and had a very solid thesis. Ger published 7 papers at UT, 5 of which were in top venues in electrical engineering, operations research and game theory. Ger could have done well in academia but he wanted to be in industry, and was thrilled to get his top choice position as a software engineer at Google in Sunnyvale, CA.

In addition to Ger, I have mentored two postdoctoral associates, Dr. Thanasis Lianeas (who finished in my group in December 2017 and is currently a lecturer at the National Technical University of Athens, Greece) and Dr. Manolis Pountourakis (currently my postdoc) both of whom are pursuing academic careers and are both on the faculty job market this year.

Conclusion on teaching

The Budget Council Summary on my teaching states: *"Dr. Nikolova takes her teaching obligations very seriously and has strived to improve her teaching effectiveness … In closing, Dr. Nikolova is passionate about teaching, which comes across to her students and results in a highly effective style. Her teaching record clearly exceeds the expectation for an Assistant Professor in the Department of Electrical and Computer Engineering."*

In light of all above information, I strongly feel that Dean Wood's letter has not holistically evaluated my teaching portfolio. I find an evaluation of "modest teaching record" and not having taken "responsibility for improving [my] teaching" to be unfounded, unfair and not reflective of my character, efforts and achievements in teaching, and additionally it strongly contradicts the Budget Council Assessment above.

Funding

Dean Wood's concern with my funding is stated as follows: "*While Dr. Nikolova's external funding has come from highly competitive sources, approximately 70% of her funding was awarded during her first three years in rank. Only one grant has been awarded in the past four academic years. This raises questions about the sustainability of her research funding.*"

Regarding my funding track record, it seems I have been unfortunate to apply for and win three very competitive and prestigious NSF grants in the first three years of my faculty career: 2012 (as single PI), 2013 (as coPI on a three person team), 2014 (NSF CAREER as single PI, **granted upon my first submission**, out of three possible attempts that candidates are allowed). Following that remarkable success for a theoretical researcher I had more funding than I could spend and was happy that I could focus on accomplishing the ambitious research programs described in these grant proposals, rather than on trying to obtain additional funding that I did not need and that would have taken away from research time.

My department chair in multiple annual reviews said to me that for promotion and tenure it is not the number of grants or dollar amount that matters but to have enough funding to sustain an excellent research program, and each time told me I am doing excellent on funding. Indeed, I have been successful at that: My deliberate strategy to focus my time on conducting the research outlined in my initial funded proposals has resulted in a clear upward trend of my research track record. Research being commonly stated as the leading criterion for successful promotions in Tier 1 Research Institutions. My publications and citations are on the rise, and I have increased visibility and impact, as witnessed by my external letters.

In an annual review in 2016, Dr. Tewfik told me that it would be good to apply for additional grants (which I did not need at the time and was having difficulty spending the funding I already had), just so I can show more recent funding activity upon coming up for tenure. And so I did.

As a PI, I envisioned and proposed an entirely new research program on advanced algorithms for power systems, and spent two months preparing an NSF proposal to submit to the interdisciplinary "Algorithms in the Field" program in January 2017. This NSF program was established to encourage the transfer of theoretical algorithms to practical/applied domains and it was **mandatory to team up with a coPI from the corresponding application domain**. In my case, I invited Prof. Michael Caramanis (Boston University) to join as a coPI from power systems. I wrote about 90% of the proposed research text, with Dr. Caramanis writing part of one research section (p.13 of 15 pages total) and jointly writing the Broader Impacts and Prior Support from NSF sections (p.14 and 15), as well as proofreading and editing the proposal. The proposal was successful and was granted the fixed amount of $800,000.00 given to all successful proposals in that program, my share of which was $479,985.00 as Dr. Caramanis had indicated that he wanted a 40% share and I was supporting an additional postdoc.

I am very proud of this proposal as it charts completely new territory at the interface of theoretical computer science, algorithmic game theory and power systems. This NSF grant extends through September 30, 2021. My NSF CAREER award is estimated to expire on April 30, 2020, when including a typical one-year no-cost extension.

Regarding Dean Wood's statement that "[she has] *concerns about the sustainability of* [my] *research program*", I am grateful to be given the opportunity to further explain that

so far I have had **100% success rate** with the NSF proposals (and one Google faculty award) I have submitted as PI, relative to the 10-20% which is commonly cited as the fraction of funded proposals. I feel this is a very strong success rate even relative to senior researchers in my field.

My external letter writers provide additional testimony on my funding record: "**Her funding record**, building on her NSF career award, **is very strong for someone working in the more theoretical part of the field**, and indicates the practical relevance of her results and insights."

I also want to emphasize that so far, my work has been primarily theoretical, thus making NSF the best source of funding. I am currently expanding additionally into power systems applications, which have opened up new avenues and possibilities for funding sources.

Regarding sustainability of my research, as of December 2018, I have approximately 2.5 years of existing funding left to support my research group. At the time of submitting my promotion materials, I had 1 postdoc and 6 PhD students. Since then, I have
   • graduated one PhD student;
   • have a second jointly funded PhD student expected to graduate in Fall 2019;
   • a third PhD student that is expected to graduate in August 2020 and
   • my postdoc's appointment runs through August 2019.

With graduations and my new group size of 4 students and no postdoc, my expenses will be about $250,000 per year. My current remaining funding as of December 2018 is around $600,000. This gives me about 2.5 years left with my current funding alone. I have no reason to doubt that I will be able to obtain additional grants in that time frame to continue sustaining my group once my current grants are spent.

From the total $1.6 million of my share of grants, I have spent about $1 million over the past 7 years so far, averaging much less than $200,000 per year. That is directly in alignment with where I am at currently. Further, as a theoretical researcher our groups are relatively small, with my average group size being 4 students. With this, I do not understand why Dean Wood questions the sustainability of my research program.

Early vs. Late promotion
Dean Wood's statement seems contradictory in recognizing my 2.5 years as Assistant Professor at Texas A&M (attributing heavy weight on funding attained while at Texas A&M) while at the same time calling my case early, after 7 years as an Assistant Professor. To me, having been on a 7-year tenure clock so far comes as 2 years late. An implication of her Assessment that I should be put on a 9-year tenure clock, a time frame in which other faculty typically transition from Assistant all the way to Full Professors, seems deeply unequal and unfair.

In addition, it seems like a minor technicality that puts me in this position of being considered "technically early" and seemingly been held to a much higher standard. I would have started at UT Austin in Fall 2013, which would have put me exactly at the "up or out" year now. However, my offer came delayed in June 2013 and the department chair Dr. Ahmed Tewfik stated that because of this delay, I will be given a start date of January 2014 so as to be nice to Texas A&M and not take me away from there on too short of a notice. If I had been a postdoc, I trust I would have been given the standard Fall 2013 start date. My more advanced in-rank position at the time seems to have caused me to be treated as less advanced now.

The second additional year comes from having been advised to accept the default extension to my probationary period due to childbirth of my first child Julian in March 2016, even if I felt I didn't need one -- since I could always rescind it later on and *it shouldn't hurt me in the process* and yet it has.

I remark that I am being considered in the same year as my colleague Dr. Mohit Tiwari, who started at UT Austin in Fall 2013 following a postdoc; thus I am two years his senior in rank yet being treated as two years his junior (for a **4 year inequality to advancement**) and additionally being held to a higher standard. Dr. Tiwari sought my advice for his NSF CAREER submission, which he won one year after me; I like to think that my help contributed to his success.

As Dean Wood states, she would have been supportive if I was an "up or out" case.

Throughout my time at UT, I feel that I have faced a moving target regarding both the timing and substance of promotion requirements. I have diligently followed recommendations from all levels: from senior faculty in my department on publishing more papers, from the department chair to get additional funding and from Dean Wood on waiting to graduate a PhD student before I submit my case—a question that I asked her in one of the annual tenure and promotion meetings she holds for assistant professors in the Cockrell School.

I strongly feel that I have satisfied all requirements and met the bar for tenure. In fact, one might argue that I have gone well beyond the bar for tenure, as an external letter writer from MIT writes "*Over a fifteen-year period, I would put her in the top 20% of all those I have evaluated and subsequently received tenure.*" Another external letter states: *"She would certainly have received tenure easily at all the institutions I have been affiliated with..."* Yet another external letter writer states: "*Simply put, Dr. Nikolova is one of the world's leading junior researchers working in the intersection of fields including operations research and theoretical computer science and ECE. ... I very strongly recommend Dr. Nikolova's promotion to Associate Professor with tenure, and that you do your best to keep her in this competitive market.*"

I feel Dean Wood and the President's committee should strongly consider the inequity that I am facing.

<u>Conclusion</u>

I want to be in a growing department, college and university that has clear and transparent policies and that nourishes and promotes their junior faculty. I have incredibly strong support from my departmental colleagues, my department chair, and the college tenure and promotion committee in my tenure and promotion case. Dean Wood's letter notes my strong publication record, international recognition, prestigious research awards, highly competitive NSF grants, and uniformly positive external letters.

On the family side, my husband and I are not agreeable with me being put on a 9-year tenure clock relative to the standard 5-year clock for assistant professors, and in the event of me not being promoted (after an already prolonged 7-years time in-rank), I will be considering other options. Other junior faculty in the same situation as me with prior faculty experience will likely be affected in their future decisions, which could further weaken the Department and the Cockrell School, especially in light of the recent/upcoming departures of Dr. Andrea Alu and Dr. Zheng Wang.

In this rebuttal, I have provided extensive information and detail addressing the concerns in Dean Wood's Assessment. My hope is that the additional information and clarification that I have provided will aid in a holistic evaluation that will reach a recommendation of "promote".

Appendix A. CIS Results for EE 360C from
https://utdirect.utexas.edu/ctl/ecis/results/search.WBX

Instructor	Instructor eval.	Course eval.	Survey responses/ Enrollment	Course	Unique Number	Semester
Aziz, Adnan	3.4	3.6	24/35	E E360C	16100	Spring 2007
Aziz, Adnan	4.0	3.7	27/42	E E360C	16250	Spring 2008
Ghosh, Joydeep	2.9	3.3	28/49	E E360C	16890	Fall 2007
Ghosh, Joydeep	3.4	3.1	19/25	E E360C	16825	Fall 2009
Ghosh, Joydeep	4.0	3.9	19/27	E E360C	16655	Fall 2010
Ghosh, Joydeep	3.7	3.4	29/35	E E360C	16870	Fall 2011
Ghosh, Joydeep	3.9	3.7	43/69	E E360C	16755	Fall 2012
Ghosh, Joydeep	3.0	3.3	67/99	E E360C	16900	Fall 2013
Ghosh, Joydeep	3.4	3.3	52/79	E E360C	16260	Spring 2015
Jacome, Margarida F	3.3	3.4	29/55	E E360C	16075	Fall 2005
Jacome, Margarida F	3.5	3.4	32/60	E E360C	16575	Fall 2006
Julien, Christine L	4.1	3.8	32/41	E E360C	16335	Spring 2009
Julien, Christine L	4.1	3.6	54/68	E E360C	16515	Spring 2010
Julien, Christine L	4.5	4.3	33/73	E E360C	16715	Spring 2011
Julien, Christine L	4.5	4.2	42/78	E E360C	16590	Spring 2012
Julien, Christine L	4.6	4.3	19/22	E E360C	77575	Summer 2012
Julien, Christine L	4.5	4.3	70/92	E E360C	16505	Spring 2013
Julien, Christine L	4.7	4.4	65/95	E E360C	16960	Spring 2014
Julien, Christine L	4.5	4.3	60/99	E E360C	16480	Spring 2017
Julien, Christine L	4.7	4.5	58/106	E E360C	15775	Spring 2018
Khurshid, Sarfraz	3.5	3.3	34/46	E E360C	16865	Fall 2008
Nandakumar, Vallath	3.3	3.3	59/88	E E360C	16435	Spring 2016
Nandakumar, Vallath	2.7	3.3	58/72	E E360C	15770	Spring 2018
Nikolova, Evdokia	4.0	3.7	42/61	E E360C	17070	Fall 2014
Nikolova, Evdokia	3.9	3.4	38/82	E E360C	16685	Fall 2016
Nikolova, Evdokia	3.9	3.7	46/69	E E360C	16495	Fall 2017
Nikolova, Evdokia	3.7	3.3	46/65	E E360C	16500	Fall 2017
Santacruz, Pedro E	3.7	3.5	36/60	E E360C	17075	Fall 2014
Siddiqui, Junaid Haroon	3.0	2.9	21/27	E E360C	77500	Summer 2013

Soloveichik, David	3.0	3.0	36/77	E E360C	16690	Fall 2016
Soloveichik, David	3.9	3.7	30/39	E E360C	16505	Fall 2017
Thomaz, Andrea Lockerd	3.4	3.6	28/82	E E360C	16485	Spring 2017
Touba, Nur A	4.5	4.2	11/17	E E360C	77335	Summer 2014
Touba, Nur A	4.3	4.1	20/33	E E360C	77065	Summer 2015
Touba, Nur A	3.8	3.7	46/87	E E360C	16585	Fall 2015
Touba, Nur A	4.5	3.8	36/68	E E360C	16580	Fall 2015
Touba, Nur A	4.4	4.2	18/33	E E360C	76595	Summer 2016
Touba, Nur A	4.2	3.8	15/34	E E360C	76225	Summer 2017

Instructor status:

Aziz, Adnan – Associate Professor
Ghosh, Joydeep – Professor
Touba, Nur – Professor
Jacome, Margarida – Professor
Julien, Christine – Professor
Khurshid, Sarfraz – Professor
Nandakumar, Vallath – Lecturer

Nikolova, Evdokia – Assistant Professor
Santacruz, Pedro – Lecturer
Siddiqui, Junaid Haroon – Lecturer
Soloveichik, David – Assistant Professor
Thomas, Andrea Lockerd – Associate Professor
Touba, Nur – Professor

Appendix B: Student Comments Summary with Instructor Actions
(From EE 360C in Fall 2014 and Fall 2016 – Last classes I taught were in Fall 2017 and I have not had comments from them implemented yet due to the next course has not happened yet, but I will continue to utilize the latest Fall 2017 student comments in my next course taught.) Suggestions for improvement are in italics/red.

Addressed Comment	Strong Pos	Pos	Instructor Suggestions	Instr Neg	Strong Neg	Student Written Comments
						Fall 2014 - EE 360C *(First undergraduate course taught at UT)*
positive	x					"Very patient and approachable encourages students to ask questions & grapple with the material. Very thorough in her explanations and always willing to clarify. Excellent Professor!"
positive	x					"I really enjoyed learning from the Professor. Her enthusiasm and readiness to try examples in class and field questions was awesome!"
positive	x					"Great Professor. 'I' wasn't looking forward to this class, but she made it fun."
positive	x					"Professor is very helpful"
positive		x				"Good course. I'm not doing super great grade-wise, but that's just because it's hard 'material'. Lectures are helpful and Dr. Nikolova is very helpful in office hours. TA's were helpful on programming assignments."
positive		x				"The class was well organized. Explaining problems on the board helped a lot."
positive		x				"Good!"
positive		x				"You are a good lecturer, *but it may be better in the future to spend less time explaining one whole problem.*"
yes	x					"Your dress is immaculate! Great lectures. *Sketched about writing your/pedros name on Julien's slides.*"
yes	x		x			"The class has become one of my favorite EE classes. -Her- passion for teaching makes me interested in coming to class. *The only suggestion I'd give is to change the programming assignments to be more relevant to the class* ."
yes		x		x		"The instructor was clear *but sometimes -she- got bogged down tediously running through long examples, which might have affected the flow or interest level of the class.* I think the class improved throughout the semester, and it was clear that you put in the effort and cared about the students. Excellent job, especially for the first time teaching the class."
yes		x		x		"Dr. Nikolova was *occasionally not well prepared for lectures as would have been ideal.* She always 'saved' the lectures to make sure everyone understood the concept, *but only after some less than clear explanation (not to say this always happened, but when it did this was the pattern). To clarify it would have ben better to simply start with the example that she eventually resorted to. Often the examples went long when we didn't understand at first and became tedious,* though overall I was happy with the course, and it is obvious that Dr. Nikolova cares about the students and knows the material. 'Smoothness' or other efficiencies in communicating material the first time is hard."
yes			x			*"The only issue I had was that some lectures got sidetracked by questions ."*
-		x		x		" Class was very well structured and helpful, *with the sole exception of programming assignments which were often confusing and hard to submit* ."
yes		x	x			"This course was very difficult but I thought -she- was a very good professor. ....***would benefit from weekly problem solving TA session*** ."
yes (1)		x	x			*"Faster feedback on programing assignments and more of them.* Although it's nice we have a choice of languages, *it'd make submitting assignments easier if only one language was used."*
yes (2)				x		*"Programming assignments were very inconsistent in terms of the required deliverables. This course would be better suited giving more time understanding the things we learned near the end of the semester, rather than the subjects we spent time on in the beginning of the semester."*
yes				x		*"I think PowerPoint should be rewritten to what will be covered or better yet, not used at all. TAs seem to be too independent and should be controlled more. More exercise and emphasis should be given to examples instead of theory. Use the board more and class will be more clear"*
-					x	*"Instructor doesn't know the material well. -Wasn't- able to solve or explain problems during class.*
	6	9	4	5	1	

Addressed Comment	Strong Pos	Pos	Instructor Suggestions	Instr Neg	Strong Neg	
						Fall 2016 - EE 360C
positive	x					"Nikolova is awesome!"
positive	x					"Great Lectures"
positive	x					"Prof Nikolova was very intelligent and nice. Explained most topics in great detail. Also best dressed ECE professor."
positive	x					"Very knowledgeable on course material & much better job at explaining compared to textbook. I really appreciated being able to participate in class and that you answered all questions."
positive	x					"Learnt a lot in the class. Programming projects were a good complement. *Lectures could have a bit more 'exciting.* "
positive		x				"Good class, great material, *boring lectures.*"
yes	x			x		"Dr. Nikolova has been one of the better teachers I've had in my time at UT. The open format of lecture encourages questions and is more useful than only pure lecture. *The class resources (slides, textbook) are not very helpful, so knowing what to study for tests is very difficult.*
yes		x		x		"Dr. Nikolova seems dedicated and enthusiastic about the material, *but often explained it poorly, went too fast, or allowed the discussion to become overly complicated from questions.*"
yes (3)		x	x			"Material is interesting *but proof-based teaching / testing may not be helpful / applicable for most engineers. Some content is hard to understand and exams are stressful.* I hope you curve the grades enough to reflect everyone's efforts in the course. Thanks."
-		x	x			"The format and structure of the course was good, *but I would prefer more topics were explored. While proving algorithms is important, this shouldn't take the entire lecture . I'd rather more topics were explored instead.*"
-		x		x		"Dr Nikolova is very bright, *but was not always able to effectively communicate info to the class.*"
yes			x			*"I just think it would have helped if the homeworks had some sort of feedback."*
yes (4)		x	x			"Good Teacher, *just wish she had more office hours.*"
yes (4)			x			*"I wish her office hours were later and she had more of them."*
yes (5)		x		x		"Nikolova was a good teacher who was easily reachable for help. *I felt like she went a bit quickly in class and so it was hard to follow at times. I disliked how the quiz grades were weighted to be so much,* ….I did think the information was interesting. *Suggestions: - Post all the lecture slides before class; - don't work off the PowerPoint, instead* **doing work on the board** *is exponentially more helpful;* - **have office hours at a location much closer to campus;** *- more extra credit opportunities please*"
yes (6)		x		x		*"- Lecture slides info could use less notation and be more clear;* - I like that we went over the possible implementations of algorithms, *but I felt we rushed thru the actual, correct algorithm implementation; - Quizzes might be more beneficial if all came from hw questions.*"
yes						*"Get a new display port to VGA adapter"*
	6	8	5	5	-	

(1) "yes" on faster feedback.

(2) "yes" on organizing programming assignments better.

(3) "yes" on providing more help preparing for exams via practice exams.

(4) The comments on office hours were given while my office and office hours were in the UTA building, 20 minutes walk from the class location. I have not had any issues with office hours since the ECE department moved back on campus into the EER building.

(5) "yes" on use of the board and on office hours.

(6) "yes" half of the quiz questions come from the homework.

EXHIBIT 34

Evdokia Nikolova
Assistant Professor
University of Texas at Austin

TEACHING STATEMENT

1. Teaching Philosophy

Motivation and challenges. As the daughter of a life-long high-school teacher of mathematics, my first professional aspirations were to become a teacher. I was fortunate to discover my love for teaching very early on—while tutoring mathematics to fellow students in middle-school and high-school. During this first formal experience in teaching, I developed an understanding of the differences in learning styles among students and I felt very rewarded as I was able to tailor my teaching style to every individual student.

As a college and PhD student, I served as a teaching assistant for several undergraduate courses, including "Introduction to Algorithms" and a mathematics course on "Functions and Graphs" at Harvard, and a graduate course "Game Theory" at MIT EECS. My students ranged from undergraduates to adults with very diverse mathematical backgrounds. The transition from my earlier experience with one-on-one tutoring to teaching a roomful of students was challenging: because in a classroom, I have to address the class as a whole, unable to adapt my explanations of concepts and proofs to the individual levels that were best fitted for each student. This is inevitably a challenge for every teacher addressing a roomful of students with diverse backgrounds and aptitudes for learning—and there is no easy solution. I have continued looking for ways to address these challenges as a course instructor at Texas A&M and at UT Austin—in the undergraduate courses on algorithms and the graduate courses "Risk-averse and Stochastic Optimization" and "Algorithmic Game Theory" that I developed and taught, and especially the graduate course "Advanced Algorithms," which I taught in Fall 2012 to more than 50 students from multiple departments (Computer Science, Electrical, Mechanical and Civil Engineering, and Economics). I revisit my undergraduate and graduate teaching in more detail in the subsequent sections.

Teaching style. While lecturing, my style is to pay close attention to the (often silent) reactions of students to what I say: I look for cues and facial expressions, as well as answers to my frequent prompts for questions, as a way of testing whether I am successful in connecting with my audience. Grading assignments, exams, as well as soliciting direct feedback is also an invaluable way of being on top of the needs of individual students and my overall teaching effectiveness. The undergraduate and graduate courses have been rewarding in distinct ways: teaching fundamental material offers an exciting opportunity time and again to develop the appreciation of "newcomers" for scientific concepts that our research profession as well as a number of real-life applications build on. An advanced course, on the other hand, presents an opportunity for a dialogue and mutual learning experience that also gives me, the lecturer, an exciting new look at the corresponding material.

Some of my first role-models were my own high-school and college teachers of mathematics. I admired the clarity of their lecture style, the detailed writing and beautiful organization of the material on the blackboard, the carefully chosen problems to spark the students' attention while also conveying the course material. For theoretical material, I believe that it is crucial for every student to learn to construct and write proofs, and the best way to teach this is by example. However, I recognize that I would also be teaching students with more applied interests: for those I try to motivate and spark the interest in theoretical concepts with relevant practical applications. I will continue following a similar teaching style as my role-model teachers, by carefully combining detailed presentation of concepts with higher-level overview of their importance.

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2. Undergraduate Teaching

Honors Undergraduate Algorithms with Novel Research Component at TAMU. My first undergraduate teaching course was an Honors Algorithms course that I taught at Texas A&M University (TAMU). I had around eleven very highly motivated students in the class, and I started out with an ambitious innovation to interweave a semester-long research project and teach them about research. My goal was to motivate them with the material I taught in class and spark their passion for the unknown. It was a research project on shortest paths, one of the core problems with multiple algorithms covered in standard undergraduate algorithms courses, the research novelty being that each network edge had two weights rather than one (corresponding to two criteria users care about, say travel time and travel cost). The goal was to find all possible shortest paths that minimize some linear combination of the two weights—specifically, I wanted them to implement a computer program searching for the maximum number of such paths in planar graphs or give some theoretical analysis on what they thought the maximum number was. I figured it was a very easy problem to explain while still being an open research problem that I am actively interested in.

The research component was a great success since, on the one hand, it had clear deliverables that I used as part of the homework and programming assignments I designed. On the other hand, it left room for creativity on the part of the students for trying to find methods of generating more and more paths, and culminated in a friendly competition among different teams who showcased the graphs and edge weights with maximum number of paths in final project papers and presentations they gave at the end of the semester. During the course of the semester, I had set milestones and was regularly meeting with and closely mentoring the students with their research progress. At the end of the semester, I encouraged the best student to engage in undergraduate research, which he did with me for the subsequent semester. I believe this was a special experience for all students in the course, as it was for me, which I would love to repeat at UT Austin once the inaugural honors undergraduate EE program takes off.

Algorithms EE 360C at UT. At UT Austin, I have been teaching the undergraduate algorithms class EE 360C, which is a required course for many EE majors and my sections have had enrollments ranging from 61 to 82 students. This is one of the most demanding courses in the EE curriculum, taken predominantly by juniors and seniors. It is especially challenging to teach due to its demanding mathematical material and the inexperience of many students with writing mathematical proofs (a skill that takes years to develop, like good writing, and unfortunately the prerequisite course "Discrete Mathematics" offered by the Math department is not enough to teach them that skill). I developed several new lectures for EE 360C on the topics of shortest paths and NP-Completeness, as well as new homeworks and exams, while also building on teaching material developed by Prof. Julien from prior iterations of the course.

The difference of my current teaching style over my own experience of learning as a student, is that I use a combination of slides and white-board teaching. Alternating between the two breaks the monotonicity of either style and seems to better engage the students' attention. The slides, made available to the students, are useful for them to focus on understanding what I say in real-time rather than worrying about writing down every word I say (as was my own learning experience as a student). The white-board on the other hand is essential for practice in rigorous mathematical writing and naturally slows down the pace so more difficult mathematical concepts have time to be absorbed. I also alternate teaching new material with problem solving on the board in lecture. Something that greatly enhanced my own learning and experience as an undergraduate at Harvard University was the recitation/problem-solving sections accompanying each course, taught by teaching assistants to at most 10-15 students in the course assigned to the corresponding section.

My fellow instructor, Prof. David Soloveichik, and I experimented with that method for the first time in EE 360C in Fall 2017 at UT Austin, introducing two recitation sections per week, which the TAs alternated teaching. Our idea was then also adopted by Prof. Julien who taught 360C in Spring 2018. It would be

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invaluable to have more TA help to lead (mandatory or voluntary) problem solving sessions in smaller student groups since those would allow for much greater interaction and an enhanced learning experience for the students. Additionally, we held an event outside the classroom, "Lunch with the professors," to show our personal sides during an informal dialogue driven by the student questions to us. All students across the three sections taught that semester were welcome to join, and we heard very positive student feedback (including on my teaching evaluations) and encouragement to repeat the event on a regular basis in future semesters.

Comments from student evaluations. The difficulty of the course has also made it hard to find qualified teaching assistants. In two of the semesters I taught the course (Fall 2016 and Fall 2017), the available TA candidate pool was especially limited. That issue was coupled with even worse performance than we expected from the appointed TAs, which we diligently tried to improve through increased communication and weekly staff meetings. I believe that was the key factor for lowering my instructor and course evaluations. Most handwritten comments on the student evaluations are very positive on my quality of teaching and care for the students[1]; the negative comments are directed mainly toward the TAs and their responsibilities (creating and grading homework and programming assignments).[2] I have tried hard to learn from my experience and the advice of my colleagues that I continuously solicit, and I will keep working on developing better techniques for recruiting and selecting highly qualified TAs, as well as becoming better at TA management in future semesters.

3. Graduate Teaching

Advanced algorithms. At TAMU, I developed a new graduate class on advanced algorithms. At the time, I was criticized for making the course too hard. At UT, on the contrary, I recognized the much more advanced theoretical graduate student body and was encouraged by colleagues to teach harder material. So I developed an entirely different and much more advanced version that focuses on "approximation algorithms," which is a rigorous mathematical field of algorithmic techniques for hard problems that have no known efficient algorithms. (Examples from real-life include how a courier service like UPS can most efficiently visit multiple addresses to complete deliveries in the shortest amount of time or distance driven—the theoretical equivalent is known as the "Traveling Salesman Problem", a notoriously hard theoretical problem for which there is still great research interest for improving existing algorithm designs and performance.)

Game theory. There is no regularly offered class on Algorithmic Game Theory at UT, and it has been a challenge for the students here to be educated or engage in research in the interface at Electrical Engineering & Computer Science, and Economics departments. I developed and taught a new course on "Algorithmic Game Theory" in Spring 2012, and will continue incorporating new state-of-the-art material into the course in subsequent years. Due to the high practical relevance of this field and its lack in the curriculum so far, I anticipate student interest at both the undergraduate and graduate levels and multiple disciplines (electrical engineering, computer science, operations research, mathematics, civil engineering, aero-astro), and in the future I might try offering a combined graduate-undergraduate version.

Risk-averse Optimization (TAMU). This was the first graduate class that I taught at Texas A&M, in a seminar style where students alternated giving presentations on research papers, followed by discussion of the papers by the entire class. The course drew a diverse audience of students from civil engineering, industrial

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1 Example of positive student comment: "Dr Nikolova you were Awesome! You presented material and walked through problems in a patient way that made concepts easy-to-understand. Overall, extremely glad I had you for this course! Also, loved how excited about the material you were!"

2 Example of negative student comment: "The programming assignments were disorganized and graded too hastily by TAs."

engineering, mathematics and computer science.

4. Individual Instruction

I care deeply about each member of my research group, which has rapidly grown to 6 students (two of them co-advised) and 2 postdocs (one postdoc finished in December 2017 and is now a lecturer at the National Technical University of Athens, while my first PhD student, Ger Yang, successfully defended his PhD thesis in May 2018 and is graduating in August 2018). My motto with my PhD students and postdocs is that *each of them should feel special!* I truly believe that encouragement brings out the best in a human being, and maybe a tiny dose of friendly competition (but not too much to discourage them!). I operate my group as a team. I encourage every group member to feel responsible for the well-being of the other group members and to learn from them and appreciate the others' unique strengths and talents. I try hard to help each of my students/postdocs discover and develop their unique strengths and talents, while nurturing them to grow into a balanced and well-rounded human being in both research and life. I also try gently to help them improve on weaknesses, social and academic alike. I feel deeply rewarded as an advisor when I manage to help them reach personal and professional fulfillment.

5. Outreach, increasing diversity and future plans

Teaching for a broad audience outside the classroom. I believe that down-to-earth accessible teaching is essential for inspiring young people to pursue research for the advancement of research itself and, even more critical, the advancement of interdisciplinary research. In an effort to bridge the gap between theoretical computer science and other disciplines, I gave an introductory lecture "A Brief Introduction to Algorithms, Game Theory and Risk-Averse Decision Making", recorded at the Simons Institute in Berkeley, CA. In the following months, I received several compliments that the lecture was very clear and helped them to better understand the field of algorithms, from both students and faculty members from other research disciplines (A UC Berkeley EECS professor and a UT colleague working in power systems). I expended a great deal of time preparing the lecture, rehearsing and reworking it to ensure its broad accessibility so their unsolicited comments were extremely rewarding. This lecture now has over 700 views on YouTube and a link is available on my website.

Outreach and community building. I believe that the highest impact on increasing diversity in engineering and STEM disciplines in general will be achieved through role models and building communities so underrepresented students do not feel isolated. Hoping to become a role model, I gave four lectures on "Computing for Green" to over 1000 K-12 students of diverse backgrounds from Austin and Central Texas, in Feb. 2016, as part of the annual "Edison Lecture Series" at UT Austin. I have also spoken for three consecutive years at Camp Texas to incoming UT freshmen on topics including how to succeed in college, choosing a major and a career, and research. Additionally, to encourage the entry of underrepresented students into STEM disciplines, my dream is to help build communities through novel initiatives by combining STEM and non-STEM disciplines, such as mathematics and dance, in one-day events and summer programs. In the past, I organized a belly-dancing class for electrical engineering majors that was attended by about 30 undergraduates from UT Austin (including two brave male students!). I also plan to run one-day pilot programs that combine research lectures by faculty and dance classes (possibly also by faculty) for undergraduates before expanding to math-dance summer camps for middle and high-school students.

Additional mentoring. As a graduate student at MIT, I had the opportunity to mentor several high-school students in research (from the very competitive "Research Science Institute" (RSI) program for high-school students that takes place every summer at MIT). At the Spring 2018 Simons Research Program on "Real-time Decision Making" that I co-organized, I served as official mentor for Sofya Vorotnikova, a Simons fellow and PhD student from UMass-Amherst. Both formal and informal mentoring is critical to nurture progress,

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motivation and fulfillment at all levels of one's career. I have myself benefited enormously from my mentors and advisors, and I look forward to counseling and guiding my students/mentees to ensure they reach their full potential and find rewarding and fulfilling career paths.

Summary Tables

Table 1. Summary of Course-Instructor Ratings

Metric	Value
Total # of students taught in organized courses	341
Average instructor evaluation for UG courses	3.9
Average instructor evaluation for Grad courses	4.1
Average course evaluation for UG courses	3.5
Average course evaluation for Grad courses	3.9

Table 2. Course Schedule by Semester with Number of Students Indicated

Semester		Enrollment	Instructor Score	Course Score
Spring 2018	Taught double load in Fall 2017			
Fall 2017	EE 360C: Algorithms	69	3.9	3.7
	EE 360C: Algorithms	65	3.7	3.3
Spring 2017	EE 381V: Advanced Algorithms	26	3.9	3.5
Fall 2016	EE 360C: Algorithms	82	3.9	3.4
Spring 2016	On teaching relief			
Fall 2015	On teaching relief			
Spring 2015	EE 381V: Advanced Algorithms	22	4.3	4.1
Fall 2014	EE 360C: Algorithms	61	4.0	3.7
Spring 2014	EE 381V: Game Theory	16	4.1	4.1

Table 3. Summary of Graduate Students Currently Supervised at UT Austin

Student Name	Co-Supervisor	Degree	Start Date	Date Reached Candidacy	Date Expected to Reach Candidacy	Expected Graduation (end) Date
Ger Yang		PhD	08/2014	11/2017		Summer 2018
Soumya Basu	Sanjay Shakkottai	PhD	08/2014		Spring 2018	Spring 2019
Ali Khodabakhsh		PhD	08/2015		Fall 2018	Fall 2019
Orestis Papadigenopoulos		PhD	08/2016		Fall 2019	Fall 2020
Isidoros Giotis		PhD	08/2017		Fall 2020	Fall 2021
Nithin Ramesan	Francois Baccelli	PhD	08/2017		Fall 2020	Fall 2021
Eftychia Vakaliou		PhD	08/2018		Fall 2021	Fall 2022

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Evdokia Nikolova
Department of Electrical and Computer Engineering
Course Rating Averages

What source was used to complete this chart? My CIS

EE 360C: Algorithms

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
F14	61	42	4.0	3.7
F16	82	38	3.9	3.4
F17	65	46	3.7	3.3
F17	69	46	3.9	3.7
Mean	**69**	**43**	**3.9**	**3.5**

EE 381V: Advanced Algorithms

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
Sp15	22	19	4.3	4.1
Sp17	26	16	3.9	3.5
Mean	**24**	**17.5**	**4.1**	**3.8**

EE 381V: Game Theory

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
Sp14	16	14	4.1	4.1
Mean	**16**	**14**	**4.1**	**4.1**

EXHIBIT 35

CIS Individual Results

Survey Details

Instructor: Aziz, Adnan
Course & Unique Number: E E360C (16100)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2007
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 35
Number of survey forms *returned: 24
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	7 (29.2%)	10 (41.7%)	7 (29.2%)	24	4.0	4.1	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	1 (4.2%)	7 (29.2%)	14 (58.3%)	2 (8.3%)	24	3.7	4.0	4.1	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	2 (8.3%)	7 (29.2%)	10 (41.7%)	5 (20.8%)	24	3.8	4.1	4.2	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	5 (20.8%)	8 (33.3%)	11 (45.8%)	24	4.3	4.2	4.1	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	4 (16.7%)	13 (54.2%)	7 (29.2%)	24	4.1	4.2	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	1 (4.2%)	4 (16.7%)	10 (41.7%)	9 (37.5%)	24	4.1	4.1	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	1 (4.2%)	15 (62.5%)	6 (25.0%)	2 (8.3%)	24	3.4	3.9	4.0	4.2
Overall, this course was	0 (0.0%)	0 (0.0%)	13 (54.2%)	8 (33.3%)	3 (12.5%)	24	3.6	3.7	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	8 (33.3%)	14 (58.3%)	2 (8.3%)	0 (0.0%)	24	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

CIS Individual Results

Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Aziz, Adnan
Course & Unique Number: E E360C (16250)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2008
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 42
Number of survey forms *returned: 27
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (3.7%)	18 (66.7%)	8 (29.6%)	27	4.3	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	1 (3.7%)	3 (11.1%)	15 (55.6%)	8 (29.6%)	27	4.1	4.1	4.1	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	1 (3.7%)	5 (18.5%)	10 (37.0%)	11 (40.7%)	27	4.1	4.2	4.2	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	4 (14.8%)	5 (18.5%)	12 (44.4%)	6 (22.2%)	27	3.7	4.2	4.1	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	1 (3.7%)	5 (18.5%)	11 (40.7%)	10 (37.0%)	27	4.1	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	2 (7.4%)	2 (7.4%)	12 (44.4%)	11 (40.7%)	27	4.2	4.1	4.1	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	6 (22.2%)	15 (55.6%)	6 (22.2%)	27	4.0	4.0	4.0	4.2
Overall, this course was	0 (0.0%)	1 (3.7%)	11 (40.7%)	10 (37.0%)	5 (18.5%)	27	3.7	3.8	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (3.7%)	15 (55.6%)	11 (40.7%)	0 (0.0%)	0 (0.0%)	27	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16890)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2007
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 49
Number of survey forms *returned: 28
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	1 (3.6%)	1 (3.6%)	8 (28.6%)	16 (57.1%)	2 (7.1%)	28	3.6	4.3	4.2	4.2
The instructor communicated information effectively.	0 (0.0%)	6 (21.4%)	5 (17.9%)	12 (42.9%)	5 (17.9%)	28	3.6	4.1	4.1	4.2
The instructor showed interest in the progress of students.	2 (7.1%)	1 (3.6%)	9 (32.1%)	10 (35.7%)	6 (21.4%)	28	3.6	4.2	4.2	4.2
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	1 (3.7%)	2 (7.4%)	17 (63.0%)	7 (25.9%)	27	4.1	4.2	4.1	4.2
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	6 (21.4%)	17 (60.7%)	5 (17.9%)	28	4.0	4.3	4.3	4.3
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	2 (7.1%)	5 (17.9%)	17 (60.7%)	4 (14.3%)	28	3.8	4.2	4.1	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	3 (10.7%)	6 (21.4%)	11 (39.3%)	7 (25.0%)	1 (3.6%)	28	2.9	4.1	4.0	4.1
Overall, this course was	0 (0.0%)	5 (17.9%)	10 (35.7%)	12 (42.9%)	1 (3.6%)	28	3.3	3.8	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (3.6%)	10 (35.7%)	17 (60.7%)	0 (0.0%)	0 (0.0%)	28	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

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CIS Individual Results

Survey Details
Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16825)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2009
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 25
Number of survey forms *returned: 19
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	1 (5.3%)	4 (21.1%)	2 (10.5%)	9 (47.4%)	3 (15.8%)	19	3.5	4.2	4.2	4.2
The instructor communicated information effectively.	1 (5.3%)	3 (15.8%)	4 (21.1%)	6 (31.6%)	5 (26.3%)	19	3.6	4.1	4.1	4.2
The instructor showed interest in the progress of students.	2 (10.5%)	0 (0.0%)	5 (26.3%)	6 (31.6%)	6 (31.6%)	19	3.7	4.2	4.2	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	2 (10.5%)	9 (47.4%)	8 (42.1%)	19	4.3	4.2	4.1	4.2
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	1 (5.3%)	4 (21.1%)	8 (42.1%)	6 (31.6%)	19	4.0	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (5.3%)	2 (10.5%)	5 (26.3%)	6 (31.6%)	5 (26.3%)	19	3.6	4.2	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (5.3%)	3 (15.8%)	5 (26.3%)	7 (36.8%)	3 (15.8%)	19	3.4	4.1	4.0	4.1
Overall, this course was	2 (10.5%)	4 (21.1%)	5 (26.3%)	6 (31.6%)	2 (10.5%)	19	3.1	3.8	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	3 (15.8%)	9 (47.4%)	7 (36.8%)	0 (0.0%)	0 (0.0%)	19	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient
```

```
Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16655)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2010
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 27
Number of survey forms *returned: 19
*****Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (5.3%)	9 (47.4%)	9 (47.4%)	19	4.4	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	2 (10.5%)	1 (5.3%)	10 (52.6%)	6 (31.6%)	19	4.1	4.1	4.1	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	4 (21.1%)	6 (31.6%)	9 (47.4%)	19	4.3	4.2	4.2	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	1 (5.3%)	2 (10.5%)	9 (47.4%)	7 (36.8%)	19	4.2	4.1	4.1	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	2 (10.5%)	5 (26.3%)	12 (63.2%)	19	4.5	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	0 (0.0%)	2 (10.5%)	5 (26.3%)	12 (63.2%)	19	4.5	4.1	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	2 (10.5%)	3 (15.8%)	7 (36.8%)	7 (36.8%)	19	4.0	4.0	4.0	4.2
Overall, this course was	0 (0.0%)	0 (0.0%)	6 (31.6%)	8 (42.1%)	5 (26.3%)	19	3.9	3.8	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	7 (38.9%)	11 (61.1%)	0 (0.0%)	0 (0.0%)	18	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16870)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2011
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 35
Number of survey forms *returned: 29
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	1 (3.4%)	3 (10.3%)	20 (69.0%)	5 (17.2%)	29	4.0	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	3 (10.3%)	1 (3.4%)	20 (69.0%)	5 (17.2%)	29	3.9	4.2	4.2	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	5 (17.2%)	18 (62.1%)	6 (20.7%)	29	4.0	4.3	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	2 (6.9%)	18 (62.1%)	9 (31.0%)	29	4.2	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	4 (13.8%)	14 (48.3%)	11 (37.9%)	29	4.2	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (3.4%)	1 (3.4%)	2 (6.9%)	18 (62.1%)	7 (24.1%)	29	4.0	4.2	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	3 (10.3%)	8 (27.6%)	13 (44.8%)	5 (17.2%)	29	3.7	4.1	4.1	4.2
Overall, this course was	1 (3.6%)	1 (3.6%)	13 (46.4%)	11 (39.3%)	2 (7.1%)	28	3.4	3.9	3.9	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	9 (32.1%)	18 (64.3%)	1 (3.6%)	0 (0.0%)	28	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16755)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2012
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 69
Number of survey forms *returned: 43
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	1 (2.3%)	2 (4.7%)	25 (58.1%)	15 (34.9%)	43	4.3	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	2 (4.7%)	7 (16.3%)	21 (48.8%)	13 (30.2%)	43	4.0	4.1	4.2	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	1 (2.3%)	4 (9.3%)	21 (48.8%)	17 (39.5%)	43	4.3	4.3	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	0 (0.0%)	16 (37.2%)	27 (62.8%)	43	4.6	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	1 (2.3%)	7 (16.3%)	13 (30.2%)	22 (51.2%)	43	4.3	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	2 (4.7%)	3 (7.0%)	18 (41.9%)	20 (46.5%)	43	4.3	4.2	4.3	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	2 (4.7%)	11 (25.6%)	19 (44.2%)	11 (25.6%)	43	3.9	4.1	4.1	4.2
Overall, this course was	0 (0.0%)	3 (7.0%)	13 (30.2%)	19 (44.2%)	8 (18.6%)	43	3.7	3.8	3.9	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (2.3%)	11 (25.6%)	31 (72.1%)	0 (0.0%)	0 (0.0%)	43	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16900)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2013
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 99
Number of survey forms *returned: 67
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	3 (4.5%)	9 (13.6%)	8 (12.1%)	35 (53.0%)	11 (16.7%)	66	3.6	4.2	4.2	4.3
The instructor communicated information effectively.	7 (10.6%)	13 (19.7%)	19 (28.8%)	17 (25.8%)	10 (15.2%)	66	3.2	4.1	4.1	4.3
The instructor showed interest in the progress of students.	5 (7.6%)	6 (9.1%)	17 (25.8%)	27 (40.9%)	11 (16.7%)	66	3.5	4.3	4.3	4.4
The tests/assignments were usually graded and returned promptly.	4 (6.1%)	3 (4.5%)	12 (18.2%)	34 (51.5%)	13 (19.7%)	66	3.7	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	3 (4.5%)	6 (9.1%)	10 (15.2%)	29 (43.9%)	18 (27.3%)	66	3.8	4.3	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	3 (4.5%)	3 (4.5%)	14 (21.2%)	30 (45.5%)	16 (24.2%)	66	3.8	4.2	4.2	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	6 (9.0%)	13 (19.4%)	27 (40.3%)	15 (22.4%)	6 (9.0%)	67	3.0	4.1	4.1	4.2
Overall, this course was	3 (4.5%)	9 (13.4%)	29 (43.3%)	20 (29.9%)	6 (9.0%)	67	3.3	3.8	3.8	4.0

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	4 (6.0%)	19 (28.4%)	40 (59.7%)	3 (4.5%)	1 (1.5%)	67	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

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CIS Individual Results

Survey Details

Instructor: Ghosh, Joydeep
Course & Unique Number: E E360C (16260)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2015
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 79
Number of survey forms *returned: 52
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	3 (5.8%)	2 (3.8%)	8 (15.4%)	22 (42.3%)	17 (32.7%)	52	3.9	4.4	4.4	4.4
The instructor was prepared for each instructional activity.	1 (1.9%)	6 (11.5%)	5 (9.6%)	19 (36.5%)	21 (40.4%)	52	4.0	4.5	4.5	4.6
The instructor communicated information effectively.	5 (9.6%)	4 (7.7%)	14 (26.9%)	19 (36.5%)	10 (19.2%)	52	3.5	4.2	4.2	4.3
The instructor encouraged me to take an active role in my own learning.	2 (3.8%)	3 (5.8%)	17 (32.7%)	16 (30.8%)	14 (26.9%)	52	3.7	4.3	4.3	4.4
The instructor was available to students either electronically or in person.	1 (1.9%)	1 (1.9%)	13 (25.0%)	24 (46.2%)	13 (25.0%)	52	3.9	4.4	4.4	4.5
The course was well organized.	3 (5.8%)	6 (11.5%)	8 (15.4%)	21 (40.4%)	14 (26.9%)	52	3.7	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	3 (5.8%)	4 (7.7%)	4 (7.7%)	17 (32.7%)	24 (46.2%)	52	4.1	4.4	4.5	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	6 (11.5%)	5 (9.6%)	11 (21.2%)	15 (28.8%)	15 (28.8%)	52	3.5	4.1	4.1	4.2
Overall, I learned a great deal in this course.	4 (7.7%)	4 (7.7%)	10 (19.2%)	16 (30.8%)	18 (34.6%)	52	3.8	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	5 (9.6%)	8 (15.4%)	14 (26.9%)	13 (25.0%)	12 (23.1%)	52	3.4	4.2	4.2	4.3
Overall, this course was	4 (7.7%)	12 (23.1%)	14 (26.9%)	11 (21.2%)	11 (21.2%)	52	3.3	3.9	3.9	4.0

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	1 (2.0%)	11 (21.6%)	34 (66.7%)	5 (9.8%)	0 (0.0%)	51	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

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CIS Individual Results

Survey Details

Instructor: Ilijev, Douglas
Course & Unique Number: E E360C (16505)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2013
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 92
Number of survey forms returned: 47

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	1 (2.1%)	0 (0.0%)	5 (10.6%)	18 (38.3%)	23 (48.9%)	47	4.3	4.3	4.3	4.3
The instructor communicated information effectively.	1 (2.1%)	4 (8.5%)	10 (21.3%)	19 (40.4%)	13 (27.7%)	47	3.8	4.2	4.2	4.3
The instructor showed interest in the progress of students.	1 (2.2%)	1 (2.2%)	10 (21.7%)	15 (32.6%)	19 (41.3%)	46	4.1	4.4	4.4	4.4
The tests/assignments were usually graded and returned promptly.	1 (2.2%)	3 (6.5%)	10 (21.7%)	18 (39.1%)	14 (30.4%)	46	3.9	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	2 (4.3%)	4 (8.5%)	12 (25.5%)	11 (23.4%)	18 (38.3%)	47	3.8	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (2.1%)	1 (2.1%)	3 (6.4%)	17 (36.2%)	25 (53.2%)	47	4.4	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (2.1%)	2 (4.3%)	17 (36.2%)	15 (31.9%)	12 (25.5%)	47	3.7	4.2	4.2	4.2
Overall, this course was	0 (0.0%)	1 (2.2%)	10 (21.7%)	16 (34.8%)	19 (41.3%)	46	4.2	4.0	4.0	4.0

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	19 (40.4%)	25 (53.2%)	2 (4.3%)	1 (2.1%)	47	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree..........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
```

```
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Jacome, Margarida F
Course & Unique Number: E E360C (16075)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2005
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 55
Number of survey forms *returned: 29
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	4 (13.8%)	13 (44.8%)	12 (41.4%)	29	4.3	4.2	4.2	4.2
The instructor communicated information effectively.	1 (3.4%)	8 (27.6%)	10 (34.5%)	8 (27.6%)	2 (6.9%)	29	3.1	4.0	4.0	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	1 (3.4%)	7 (24.1%)	15 (51.7%)	6 (20.7%)	29	3.9	4.1	4.1	4.2
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	3 (10.3%)	9 (31.0%)	13 (44.8%)	4 (13.8%)	29	3.6	4.2	4.1	4.2
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	3 (10.3%)	17 (58.6%)	9 (31.0%)	29	4.2	4.2	4.2	4.3
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (3.4%)	2 (6.9%)	9 (31.0%)	12 (41.4%)	5 (17.2%)	29	3.6	4.1	4.1	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	6 (20.7%)	10 (34.5%)	12 (41.4%)	1 (3.4%)	29	3.3	4.0	4.0	4.1
Overall, this course was	0 (0.0%)	4 (14.3%)	11 (39.3%)	11 (39.3%)	2 (7.1%)	28	3.4	3.8	3.8	3.8

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	2 (6.9%)	7 (24.1%)	18 (62.1%)	1 (3.4%)	1 (3.4%)	29	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Jacome, Margarida F
Course & Unique Number: E E360C (16575)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2006
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 60
Number of survey forms *returned: 32
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	1 (3.1%)	2 (6.3%)	3 (9.4%)	14 (43.8%)	12 (37.5%)	32	4.1	4.1	4.2	4.2
The instructor communicated information effectively.	2 (6.3%)	8 (25.0%)	7 (21.9%)	10 (31.3%)	5 (15.6%)	32	3.3	4.0	4.1	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	2 (6.3%)	6 (18.8%)	15 (46.9%)	9 (28.1%)	32	4.0	4.1	4.2	4.2
The tests/assignments were usually graded and returned promptly.	2 (6.3%)	3 (9.4%)	9 (28.1%)	13 (40.6%)	5 (15.6%)	32	3.5	4.2	4.1	4.2
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	2 (6.3%)	4 (12.5%)	15 (46.9%)	11 (34.4%)	32	4.1	4.2	4.3	4.3
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	1 (3.1%)	5 (15.6%)	12 (37.5%)	14 (43.8%)	32	4.2	4.1	4.1	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (3.1%)	5 (15.6%)	10 (31.3%)	10 (31.3%)	6 (18.8%)	32	3.5	3.9	4.0	4.1
Overall, this course was	1 (3.1%)	2 (6.3%)	15 (46.9%)	10 (31.3%)	4 (12.5%)	32	3.4	3.7	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	2 (6.3%)	13 (40.6%)	15 (46.9%)	1 (3.1%)	1 (3.1%)	32	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16335)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2009
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 41
Number of survey forms *returned: 32
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	1 (3.1%)	2 (6.3%)	10 (31.3%)	19 (59.4%)	32	4.5	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	1 (3.1%)	7 (21.9%)	11 (34.4%)	13 (40.6%)	32	4.1	4.2	4.1	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	3 (9.4%)	15 (46.9%)	14 (43.8%)	32	4.3	4.2	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	1 (3.1%)	1 (3.1%)	10 (31.3%)	20 (62.5%)	32	4.5	4.2	4.1	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	3 (9.4%)	13 (40.6%)	16 (50.0%)	32	4.4	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	0 (0.0%)	3 (9.7%)	12 (38.7%)	16 (51.6%)	31	4.4	4.2	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	1 (3.1%)	8 (25.0%)	11 (34.4%)	12 (37.5%)	32	4.1	4.1	4.1	4.2
Overall, this course was	0 (0.0%)	2 (6.3%)	10 (31.3%)	13 (40.6%)	7 (21.9%)	32	3.8	3.8	3.9	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (3.2%)	8 (25.8%)	22 (71.0%)	0 (0.0%)	0 (0.0%)	31	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16515)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2010
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 68
Number of survey forms *returned: 54
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	2 (3.7%)	1 (1.9%)	28 (51.9%)	23 (42.6%)	54	4.3	4.2	4.3	4.3
The instructor communicated information effectively.	1 (1.9%)	2 (3.7%)	11 (20.4%)	20 (37.0%)	20 (37.0%)	54	4.0	4.1	4.2	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	2 (3.7%)	22 (40.7%)	30 (55.6%)	54	4.5	4.2	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	1 (1.9%)	2 (3.7%)	29 (53.7%)	22 (40.7%)	54	4.3	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	2 (3.7%)	18 (33.3%)	34 (63.0%)	54	4.6	4.3	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	2 (3.7%)	0 (0.0%)	6 (11.1%)	25 (46.3%)	21 (38.9%)	54	4.2	4.1	4.2	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	3 (5.6%)	9 (16.7%)	20 (37.0%)	22 (40.7%)	54	4.1	4.1	4.1	4.2
Overall, this course was	1 (1.9%)	5 (9.3%)	15 (27.8%)	24 (44.4%)	9 (16.7%)	54	3.6	3.8	3.9	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (1.9%)	13 (24.1%)	36 (66.7%)	2 (3.7%)	2 (3.7%)	54	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16715)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2011
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 73
Number of survey forms returned: 33

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (31.3%)	22 (68.8%)	32	4.7	4.3	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	1 (3.0%)	1 (3.0%)	11 (33.3%)	20 (60.6%)	33	4.5	4.2	4.2	4.2
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (39.4%)	20 (60.6%)	33	4.6	4.3	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	1 (3.0%)	18 (54.5%)	14 (42.4%)	33	4.4	4.4	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (27.3%)	24 (72.7%)	33	4.7	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	1 (3.0%)	1 (3.0%)	9 (27.3%)	22 (66.7%)	33	4.6	4.3	4.3	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (45.5%)	18 (54.5%)	33	4.5	4.2	4.1	4.2
Overall, this course was	0 (0.0%)	1 (3.0%)	1 (3.0%)	18 (54.5%)	13 (39.4%)	33	4.3	3.9	3.9	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	11 (33.3%)	22 (66.7%)	0 (0.0%)	0 (0.0%)	33	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
        Strongly Disagree..........1
        Disagree...................2
        Neutral....................3
        Agree......................4
        Strongly Agree.............5


        Excessive
        High
```

```
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.
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Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16590)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2012
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 78
Number of survey forms returned: 42

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	3 (7.1%)	15 (35.7%)	24 (57.1%)	42	4.5	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	3 (7.1%)	2 (4.8%)	15 (35.7%)	22 (52.4%)	42	4.3	4.1	4.2	4.3
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	2 (4.9%)	11 (26.8%)	28 (68.3%)	41	4.6	4.3	4.3	4.3
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	1 (2.4%)	3 (7.1%)	22 (52.4%)	16 (38.1%)	42	4.3	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	2 (4.8%)	12 (28.6%)	28 (66.7%)	42	4.6	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (2.4%)	0 (0.0%)	2 (4.8%)	12 (28.6%)	27 (64.3%)	42	4.5	4.2	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	5 (11.9%)	12 (28.6%)	25 (59.5%)	42	4.5	4.1	4.1	4.2
Overall, this course was	1 (2.4%)	0 (0.0%)	8 (19.0%)	13 (31.0%)	20 (47.6%)	42	4.2	3.9	3.9	4.0

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (2.4%)	20 (47.6%)	19 (45.2%)	1 (2.4%)	1 (2.4%)	42	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
```

```
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

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CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16505)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2013
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 92
Number of survey forms returned: 70

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	1 (1.4%)	2 (2.9%)	2 (2.9%)	26 (37.1%)	39 (55.7%)	70	4.4	4.3	4.3	4.3
The instructor communicated information effectively.	1 (1.4%)	0 (0.0%)	9 (12.9%)	20 (28.6%)	40 (57.1%)	70	4.4	4.2	4.2	4.3
The instructor showed interest in the progress of students.	1 (1.4%)	0 (0.0%)	6 (8.6%)	12 (17.1%)	51 (72.9%)	70	4.6	4.4	4.4	4.4
The tests/assignments were usually graded and returned promptly.	1 (1.4%)	0 (0.0%)	3 (4.3%)	32 (45.7%)	34 (48.6%)	70	4.4	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	1 (1.4%)	0 (0.0%)	0 (0.0%)	19 (27.1%)	50 (71.4%)	70	4.7	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (1.4%)	0 (0.0%)	4 (5.7%)	23 (32.9%)	42 (60.0%)	70	4.5	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	1 (1.4%)	6 (8.6%)	17 (24.3%)	46 (65.7%)	70	4.5	4.2	4.2	4.2
Overall, this course was	0 (0.0%)	2 (2.9%)	7 (10.1%)	30 (43.5%)	30 (43.5%)	69	4.3	4.0	4.0	4.0

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	2 (2.9%)	24 (34.3%)	40 (57.1%)	3 (4.3%)	1 (1.4%)	70	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
        Strongly Disagree..........1
        Disagree...................2
        Neutral....................3
        Agree......................4
        Strongly Agree.............5


        Excessive
        High
```

```
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details
Instructor: Julien, Christine L
Course & Unique Number: E E360C (16960)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2014
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 95
Number of survey forms returned: 65

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (1.5%)	21 (32.3%)	43 (66.2%)	65	4.6	4.2	4.2	4.3
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	4 (6.2%)	19 (29.2%)	42 (64.6%)	65	4.6	4.2	4.2	4.3
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	2 (3.1%)	12 (18.5%)	51 (78.5%)	65	4.8	4.3	4.3	4.4
The tests/assignments were usually graded and returned promptly.	1 (1.5%)	5 (7.7%)	11 (16.9%)	26 (40.0%)	22 (33.8%)	65	4.0	4.3	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	1 (1.5%)	8 (12.3%)	56 (86.2%)	65	4.8	4.4	4.4	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	2 (3.1%)	2 (3.1%)	15 (23.1%)	46 (70.8%)	65	4.6	4.2	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	1 (1.5%)	1 (1.5%)	14 (21.5%)	49 (75.4%)	65	4.7	4.1	4.1	4.2
Overall, this course was	0 (0.0%)	2 (3.1%)	6 (9.2%)	21 (32.3%)	36 (55.4%)	65	4.4	3.9	3.9	4.0

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	17 (26.2%)	38 (58.5%)	7 (10.8%)	3 (4.6%)	65	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree..........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
```

```
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (77575)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2012
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 22
Number of survey forms *returned: 19
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (5.3%)	7 (36.8%)	11 (57.9%)	19	4.5	4.3	4.3	4.4
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (42.1%)	11 (57.9%)	19	4.6	4.3	4.3	4.4
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (52.6%)	9 (47.4%)	19	4.5	4.4	4.4	4.5
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	2 (10.5%)	7 (36.8%)	10 (52.6%)	19	4.4	4.3	4.3	4.5
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (52.6%)	9 (47.4%)	19	4.5	4.3	4.4	4.5
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	0 (0.0%)	1 (5.3%)	8 (42.1%)	10 (52.6%)	19	4.5	4.4	4.4	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	1 (5.3%)	6 (31.6%)	12 (63.2%)	19	4.6	4.4	4.2	4.3
Overall, this course was	0 (0.0%)	1 (5.3%)	1 (5.3%)	8 (42.1%)	9 (47.4%)	19	4.3	4.2	4.0	4.1

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	8 (42.1%)	11 (57.9%)	0 (0.0%)	0 (0.0%)	19	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Khurshid, Sarfraz
Course & Unique Number: E E360C (16865)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2008
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 46
Number of survey forms *returned: 34
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	2 (5.9%)	4 (11.8%)	7 (20.6%)	18 (52.9%)	3 (8.8%)	34	3.5	4.2	4.2	4.2
The instructor communicated information effectively.	0 (0.0%)	2 (5.9%)	5 (14.7%)	19 (55.9%)	8 (23.5%)	34	4.0	4.2	4.1	4.2
The instructor showed interest in the progress of students.	1 (2.9%)	5 (14.7%)	10 (29.4%)	9 (26.5%)	9 (26.5%)	34	3.6	4.2	4.2	4.3
The tests/assignments were usually graded and returned promptly.	4 (11.8%)	10 (29.4%)	10 (29.4%)	9 (26.5%)	1 (2.9%)	34	2.8	4.2	4.1	4.2
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	2 (5.9%)	3 (8.8%)	13 (38.2%)	16 (47.1%)	34	4.3	4.3	4.3	4.4
At this point in time, I feel that this course will be (or has already been) of value to me.	1 (2.9%)	5 (14.7%)	6 (17.6%)	12 (35.3%)	10 (29.4%)	34	3.7	4.2	4.1	4.2

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	5 (14.7%)	12 (35.3%)	11 (32.4%)	6 (17.6%)	34	3.5	4.1	4.0	4.1
Overall, this course was	0 (0.0%)	7 (20.6%)	12 (35.3%)	13 (38.2%)	2 (5.9%)	34	3.3	3.8	3.8	3.9

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	1 (2.9%)	2 (5.9%)	21 (61.8%)	8 (23.5%)	2 (5.9%)	34	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Nikolova, Evdokia
Course & Unique Number: E E360C (17070)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2014
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 61
Number of survey forms *returned: 42
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	1 (2.4%)	1 (2.4%)	2 (4.8%)	25 (59.5%)	13 (31.0%)	42	4.1	4.4	4.4	4.4
The instructor was prepared for each instructional activity.	1 (2.4%)	1 (2.4%)	3 (7.1%)	17 (40.5%)	20 (47.6%)	42	4.3	4.5	4.5	4.5
The instructor communicated information effectively.	1 (2.4%)	0 (0.0%)	3 (7.1%)	23 (54.8%)	15 (35.7%)	42	4.2	4.2	4.2	4.3
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	3 (7.1%)	4 (9.5%)	18 (42.9%)	17 (40.5%)	42	4.2	4.3	4.3	4.4
The instructor was available to students either electronically or in person.	0 (0.0%)	2 (4.8%)	3 (7.1%)	16 (38.1%)	21 (50.0%)	42	4.3	4.5	4.4	4.4
The course was well organized.	1 (2.4%)	3 (7.1%)	2 (4.8%)	19 (45.2%)	17 (40.5%)	42	4.1	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	1 (2.4%)	0 (0.0%)	2 (4.8%)	11 (26.2%)	28 (66.7%)	42	4.5	4.4	4.4	4.4
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	1 (2.4%)	5 (11.9%)	23 (54.8%)	13 (31.0%)	42	4.1	4.1	4.1	4.2
Overall, I learned a great deal in this course.	1 (2.4%)	0 (0.0%)	4 (9.5%)	23 (54.8%)	14 (33.3%)	42	4.2	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	2 (4.9%)	1 (2.4%)	6 (14.6%)	20 (48.8%)	12 (29.3%)	41	4.0	4.2	4.1	4.2
Overall, this course was	1 (2.4%)	2 (4.9%)	12 (29.3%)	19 (46.3%)	7 (17.1%)	41	3.7	3.9	3.9	4.0

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	1 (2.4%)	11 (26.8%)	21 (51.2%)	6 (14.6%)	2 (4.9%)	41	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory........1
Unsatisfactory.............2
Satisfactory...............3
Very Good..................4
Excellent..................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details
Instructor: Santacruz, Pedro E
Course & Unique Number: E E360C (17075)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2014
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 60
Number of survey forms *returned: 36
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	4 (11.1%)	17 (47.2%)	15 (41.7%)	36	4.3	4.4	4.4	4.4
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	4 (11.1%)	19 (52.8%)	13 (36.1%)	36	4.3	4.5	4.5	4.5
The instructor communicated information effectively.	2 (5.6%)	1 (2.8%)	6 (16.7%)	17 (47.2%)	10 (27.8%)	36	3.9	4.2	4.2	4.3
The instructor encouraged me to take an active role in my own learning.	1 (2.8%)	2 (5.6%)	5 (13.9%)	19 (52.8%)	9 (25.0%)	36	3.9	4.3	4.3	4.4
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	5 (13.9%)	12 (33.3%)	19 (52.8%)	36	4.4	4.5	4.4	4.4
The course was well organized.	1 (2.8%)	3 (8.3%)	6 (16.7%)	13 (36.1%)	13 (36.1%)	36	3.9	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	6 (16.7%)	13 (36.1%)	17 (47.2%)	36	4.3	4.4	4.4	4.4
The course materials (e.g., text and supplemental materials) were helpful to me.	1 (2.8%)	4 (11.1%)	9 (25.0%)	11 (30.6%)	11 (30.6%)	36	3.8	4.1	4.1	4.2
Overall, I learned a great deal in this course.	1 (2.8%)	2 (5.6%)	7 (19.4%)	13 (36.1%)	13 (36.1%)	36	4.0	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (2.8%)	2 (5.6%)	10 (27.8%)	16 (44.4%)	7 (19.4%)	36	3.7	4.2	4.1	4.2
Overall, this course was	1 (2.8%)	5 (13.9%)	9 (25.0%)	16 (44.4%)	5 (13.9%)	36	3.5	3.9	3.9	4.0

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	7 (19.4%)	24 (66.7%)	5 (13.9%)	0 (0.0%)	36	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

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CIS Individual Results

Survey Details

Instructor: Siddiqui, Junaid Haroon
Course & Unique Number: E E360C (77500)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2013
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 27
Number of survey forms *returned: 21
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	2 (9.5%)	8 (38.1%)	4 (19.0%)	5 (23.8%)	2 (9.5%)	21	2.9	4.3	4.3	4.4
The instructor communicated information effectively.	2 (9.5%)	4 (19.0%)	6 (28.6%)	6 (28.6%)	3 (14.3%)	21	3.2	4.4	4.2	4.4
The instructor showed interest in the progress of students.	0 (0.0%)	1 (4.8%)	2 (9.5%)	11 (52.4%)	7 (33.3%)	21	4.1	4.5	4.4	4.5
The tests/assignments were usually graded and returned promptly.	12 (57.1%)	2 (9.5%)	3 (14.3%)	2 (9.5%)	2 (9.5%)	21	2.0	4.1	4.3	4.5
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	1 (4.8%)	3 (14.3%)	9 (42.9%)	8 (38.1%)	21	4.1	4.5	4.5	4.5
At this point in time, I feel that this course will be (or has already been) of value to me.	2 (9.5%)	1 (4.8%)	5 (23.8%)	6 (28.6%)	7 (33.3%)	21	3.7	4.4	4.3	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	7 (33.3%)	9 (42.9%)	4 (19.0%)	1 (4.8%)	21	3.0	4.3	4.2	4.4
Overall, this course was	2 (9.5%)	5 (23.8%)	10 (47.6%)	2 (9.5%)	2 (9.5%)	21	2.9	4.0	4.0	4.1

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	5 (23.8%)	16 (76.2%)	0 (0.0%)	0 (0.0%)	21	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Touba, Nur A
Course & Unique Number: E E360C (16580)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2015
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 68
Number of survey forms *returned: 36
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	2 (5.6%)	13 (36.1%)	21 (58.3%)	36	4.5	4.4	4.4	4.4
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (22.2%)	28 (77.8%)	36	4.8	4.5	4.5	4.5
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	1 (2.8%)	11 (30.6%)	24 (66.7%)	36	4.6	4.2	4.2	4.3
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	4 (11.4%)	13 (37.1%)	18 (51.4%)	35	4.4	4.3	4.3	4.4
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	6 (16.7%)	11 (30.6%)	19 (52.8%)	36	4.4	4.4	4.4	4.5
The course was well organized.	0 (0.0%)	0 (0.0%)	2 (5.6%)	14 (38.9%)	20 (55.6%)	36	4.5	4.1	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (41.7%)	21 (58.3%)	36	4.6	4.3	4.4	4.4
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	2 (5.6%)	2 (5.6%)	16 (44.4%)	16 (44.4%)	36	4.3	4.0	4.1	4.2
Overall, I learned a great deal in this course.	0 (0.0%)	1 (2.8%)	1 (2.8%)	18 (50.0%)	16 (44.4%)	36	4.4	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	2 (5.6%)	14 (38.9%)	20 (55.6%)	36	4.5	4.1	4.1	4.3
Overall, this course was	0 (0.0%)	2 (5.6%)	11 (30.6%)	17 (47.2%)	6 (16.7%)	36	3.8	3.8	3.9	4.0

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	1 (2.8%)	6 (16.7%)	28 (77.8%)	1 (2.8%)	0 (0.0%)	36	N/A	N/A	N/A	N/A

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient
```

```
Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details
Instructor: Touba, Nur A
Course & Unique Number: E E360C (16585)
Organization: Electrical Engineering
College/School: Engineering
Semester: Fall 2015
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 87
Number of survey forms *returned: 46
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	2 (4.3%)	27 (58.7%)	17 (37.0%)	46	4.3	4.4	4.4	4.4
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	1 (2.2%)	22 (47.8%)	23 (50.0%)	46	4.5	4.5	4.5	4.5
The instructor communicated information effectively.	0 (0.0%)	1 (2.2%)	9 (19.6%)	22 (47.8%)	14 (30.4%)	46	4.1	4.2	4.2	4.3
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	1 (2.2%)	15 (33.3%)	16 (35.6%)	13 (28.9%)	45	3.9	4.3	4.3	4.4
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	4 (8.7%)	22 (47.8%)	20 (43.5%)	46	4.3	4.4	4.4	4.5
The course was well organized.	0 (0.0%)	0 (0.0%)	2 (4.4%)	21 (46.7%)	22 (48.9%)	45	4.4	4.1	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	3 (6.5%)	20 (43.5%)	23 (50.0%)	46	4.4	4.3	4.4	4.4
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	1 (2.2%)	7 (15.2%)	21 (45.7%)	17 (37.0%)	46	4.2	4.0	4.1	4.2
Overall, I learned a great deal in this course.	0 (0.0%)	1 (2.2%)	4 (8.9%)	22 (48.9%)	18 (40.0%)	45	4.3	4.3	4.3	4.3

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	18 (39.1%)	18 (39.1%)	10 (21.7%)	46	3.8	4.1	4.1	4.3
Overall, this course was	0 (0.0%)	1 (2.2%)	22 (47.8%)	15 (32.6%)	8 (17.4%)	46	3.7	3.8	3.9	4.0

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	4 (8.9%)	37 (82.2%)	3 (6.7%)	1 (2.2%)	45	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree...........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory........1
Unsatisfactory.............2
Satisfactory...............3
Very Good..................4
Excellent..................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details
Instructor: Touba, Nur A
Course & Unique Number: E E360C (77335)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2014
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 17
Number of survey forms *returned: 11
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The course was well organized.	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (36.4%)	7 (63.6%)	11	4.6	4.4	4.2	4.4
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (45.5%)	6 (54.5%)	11	4.5	4.4	4.3	4.4
The instructor showed interest in the progress of students.	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (27.3%)	8 (72.7%)	11	4.7	4.5	4.4	4.5
The tests/assignments were usually graded and returned promptly.	0 (0.0%)	0 (0.0%)	2 (18.2%)	4 (36.4%)	5 (45.5%)	11	4.3	4.7	4.4	4.5
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (18.2%)	9 (81.8%)	11	4.8	4.6	4.5	4.5
At this point in time, I feel that this course will be (or has already been) of value to me.	0 (0.0%)	0 (0.0%)	1 (9.1%)	3 (27.3%)	7 (63.6%)	11	4.5	4.4	4.4	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (54.5%)	5 (45.5%)	11	4.5	4.3	4.2	4.4
Overall, this course was	0 (0.0%)	0 (0.0%)	1 (9.1%)	7 (63.6%)	3 (27.3%)	11	4.2	4.0	4.0	4.1

Question	Excessive	High	Average	Light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was	0 (0.0%)	2 (18.2%)	7 (63.6%)	2 (18.2%)	0 (0.0%)	11	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

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CIS Individual Results

Survey Details

Instructor: Touba, Nur A
Course & Unique Number: E E360C (77065)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2015
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 33
Number of survey forms *returned: 20
***Eligible paper CIS=correct form + completed in pencil**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (25.0%)	15 (75.0%)	20	4.8	4.5	4.5	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (35.0%)	13 (65.0%)	20	4.7	4.5	4.6	4.6
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	1 (5.0%)	8 (40.0%)	11 (55.0%)	20	4.5	4.4	4.4	4.5
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	4 (20.0%)	10 (50.0%)	6 (30.0%)	20	4.1	4.3	4.4	4.5
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	1 (5.0%)	7 (35.0%)	12 (60.0%)	20	4.6	4.4	4.5	4.6
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (5.0%)	7 (35.0%)	12 (60.0%)	20	4.6	4.3	4.4	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	2 (10.0%)	5 (25.0%)	13 (65.0%)	20	4.6	4.3	4.5	4.6
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	0 (0.0%)	2 (10.0%)	9 (45.0%)	9 (45.0%)	20	4.4	3.9	4.2	4.3
Overall, I learned a great deal in this course.	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (50.0%)	10 (50.0%)	20	4.5	4.3	4.4	4.5

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	1 (5.0%)	12 (60.0%)	7 (35.0%)	20	4.3	4.1	4.3	4.4
Overall, this course was	0 (0.0%)	0 (0.0%)	4 (20.0%)	10 (50.0%)	6 (30.0%)	20	4.1	3.9	4.0	4.2

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	1 (5.0%)	18 (90.0%)	1 (5.0%)	0 (0.0%)	20	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

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CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16480)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2017
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 99
Number of survey forms returned: 60

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	1 (1.7%)	1 (1.7%)	20 (33.3%)	38 (63.3%)	60	4.6	4.4	4.4	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	3 (5.0%)	0 (0.0%)	16 (26.7%)	41 (68.3%)	60	4.6	4.5	4.5	4.6
The instructor communicated information effectively.	0 (0.0%)	1 (1.7%)	4 (6.7%)	17 (28.3%)	38 (63.3%)	60	4.5	4.2	4.2	4.4
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	1 (1.7%)	18 (30.0%)	41 (68.3%)	60	4.7	4.4	4.4	4.4
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	4 (6.7%)	15 (25.0%)	41 (68.3%)	60	4.6	4.5	4.5	4.5
The course was well organized.	0 (0.0%)	1 (1.7%)	2 (3.3%)	16 (26.7%)	41 (68.3%)	60	4.6	4.1	4.2	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	2 (3.3%)	16 (26.7%)	42 (70.0%)	60	4.7	4.4	4.4	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	1 (1.7%)	2 (3.3%)	6 (10.0%)	19 (31.7%)	32 (53.3%)	60	4.3	4.0	4.1	4.2
Overall, I learned a great deal in this course.	0 (0.0%)	0 (0.0%)	1 (1.7%)	18 (30.0%)	41 (68.3%)	60	4.7	4.2	4.3	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (1.7%)	1 (1.7%)	3 (5.0%)	15 (25.0%)	40 (66.7%)	60	4.5	4.1	4.2	4.3
Overall, this course was	1 (1.7%)	3 (5.0%)	5 (8.3%)	20 (33.3%)	31 (51.7%)	60	4.3	3.9	4.0	4.1

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	3 (5.0%)	14 (23.3%)	38 (63.3%)	5 (8.3%)	0 (0.0%)	60	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5
```

```
Excessive
High
Average
Light
Insufficient
```

```
Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

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CIS Individual Results

Survey Details
Instructor: Julien, Christine L
Course & Unique Number: E E360C (15775)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2018
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 106
Number of survey forms returned: 58

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (25.9%)	43 (74.1%)	58	4.7	4.4	4.4	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (13.8%)	50 (86.2%)	58	4.9	4.5	4.5	4.6
The instructor communicated information effectively.	0 (0.0%)	1 (1.7%)	6 (10.3%)	13 (22.4%)	38 (65.5%)	58	4.5	4.3	4.3	4.4
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	1 (1.7%)	15 (25.9%)	42 (72.4%)	58	4.7	4.5	4.4	4.5
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	1 (1.7%)	11 (19.0%)	46 (79.3%)	58	4.8	4.5	4.5	4.5
The course was well organized.	0 (0.0%)	1 (1.7%)	1 (1.7%)	13 (22.4%)	43 (74.1%)	58	4.7	4.2	4.2	4.3
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	1 (1.7%)	10 (17.2%)	47 (81.0%)	58	4.8	4.5	4.5	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	1 (1.7%)	1 (1.7%)	11 (19.0%)	13 (22.4%)	32 (55.2%)	58	4.3	4.1	4.1	4.2
Overall, I learned a great deal in this course.	0 (0.0%)	0 (0.0%)	2 (3.4%)	14 (24.1%)	42 (72.4%)	58	4.7	4.3	4.3	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	3 (5.2%)	13 (22.4%)	42 (72.4%)	58	4.7	4.2	4.2	4.3
Overall, this course was	0 (0.0%)	1 (1.7%)	5 (8.6%)	18 (31.0%)	34 (58.6%)	58	4.5	4.0	4.0	4.1

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	7 (12.1%)	45 (77.6%)	3 (5.2%)	3 (5.2%)	58	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
Strongly Disagree..........1
Disagree...................2
Neutral....................3
Agree......................4
Strongly Agree.............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory........1
Unsatisfactory.............2
Satisfactory...............3
Very Good..................4
Excellent..................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (16490)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2019
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 123
Number of survey forms returned: 60

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	1 (1.7%)	18 (30.0%)	41 (68.3%)	60	4.7	4.5	4.5	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	1 (1.7%)	15 (25.0%)	44 (73.3%)	60	4.7	4.6	4.6	4.6
The instructor communicated information effectively.	0 (0.0%)	1 (1.7%)	5 (8.3%)	18 (30.0%)	36 (60.0%)	60	4.5	4.4	4.3	4.4
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	1 (1.7%)	4 (6.7%)	9 (15.0%)	46 (76.7%)	60	4.7	4.5	4.5	4.5
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	3 (5.0%)	9 (15.0%)	48 (80.0%)	60	4.8	4.6	4.5	4.6
The course was well organized.	1 (1.7%)	2 (3.3%)	2 (3.3%)	18 (30.0%)	37 (61.7%)	60	4.5	4.3	4.3	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	1 (1.7%)	1 (1.7%)	5 (8.3%)	53 (88.3%)	60	4.8	4.6	4.5	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	1 (1.7%)	7 (11.9%)	13 (22.0%)	38 (64.4%)	59	4.5	4.2	4.1	4.3
Overall, I learned a great deal in this course.	0 (0.0%)	1 (1.7%)	2 (3.3%)	17 (28.3%)	40 (66.7%)	60	4.6	4.4	4.4	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (1.7%)	0 (0.0%)	4 (6.7%)	10 (16.7%)	45 (75.0%)	60	4.6	4.3	4.3	4.4
Overall, this course was	1 (1.7%)	1 (1.7%)	8 (13.3%)	16 (26.7%)	34 (56.7%)	60	4.4	4.0	4.0	4.1

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	12 (20.0%)	44 (73.3%)	4 (6.7%)	0 (0.0%)	60	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
            Strongly Disagree...........1
            Disagree....................2
            Neutral.....................3
            Agree.......................4
            Strongly Agree..............5


            Excessive
            High
            Average
            Light
            Insufficient


            Very Unsatisfactory.........1
            Unsatisfactory..............2
            Satisfactory................3
            Very Good...................4
            Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

> Use the browser's back button to return to your search or use the link in the navigation menu to start a new one.

Survey Details

Instructor: Julien, Christine L
Course & Unique Number: E E360C (17310)
Organization: Electrical Engineering
College/School: Engineering
Semester: Spring 2021
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 30
Number of survey forms returned: 17

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	1 (5.9%)	0 (0.0%)	0 (0.0%)	2 (11.8%)	14 (82.4%)	17	4.6	4.5	4.5	4.5
The instructor was prepared for each instructional activity.	1 (6.3%)	0 (0.0%)	0 (0.0%)	2 (12.5%)	13 (81.3%)	16	4.6	4.6	4.6	4.6
The instructor communicated information effectively.	1 (5.9%)	0 (0.0%)	0 (0.0%)	2 (11.8%)	14 (82.4%)	17	4.6	4.4	4.3	4.4
The instructor encouraged me to take an active role in my own learning.	1 (5.9%)	0 (0.0%)	0 (0.0%)	3 (17.6%)	13 (76.5%)	17	4.6	4.5	4.4	4.5
The instructor was available to students either electronically or in person.	1 (5.9%)	0 (0.0%)	2 (11.8%)	3 (17.6%)	11 (64.7%)	17	4.4	4.6	4.5	4.5
The course was well organized.	1 (5.9%)	0 (0.0%)	0 (0.0%)	3 (17.6%)	13 (76.5%)	17	4.6	4.3	4.3	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	1 (5.9%)	0 (0.0%)	0 (0.0%)	2 (11.8%)	14 (82.4%)	17	4.6	4.5	4.5	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	1 (5.9%)	0 (0.0%)	1 (5.9%)	4 (23.5%)	11 (64.7%)	17	4.4	4.2	4.2	4.3
Overall, I learned a great deal in this course.	1 (5.9%)	0 (0.0%)	0 (0.0%)	3 (17.6%)	13 (76.5%)	17	4.6	4.4	4.3	4.4

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	1 (5.9%)	0 (0.0%)	0 (0.0%)	1 (5.9%)	15 (88.2%)	17	4.7	4.4	4.2	4.4
Overall, this course was	1 (5.9%)	0 (0.0%)	1 (5.9%)	4 (23.5%)	11 (64.7%)	17	4.4	4.1	4.0	4.2

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	9 (52.9%)	8 (47.1%)	0 (0.0%)	0 (0.0%)	17	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

The Basic Form items are used in almost all UT Austin colleges and schools. These items provide general information about the course and instructor. The three sets of scales used and the associated weights are:

```
            Strongly Disagree..........1
            Disagree...................2
            Neutral....................3
            Agree......................4
            Strongly Agree.............5


            Excessive
            High
            Average
            Light
            Insufficient


            Very Unsatisfactory........1
            Unsatisfactory.............2
            Satisfactory...............3
            Very Good..................4
            Excellent..................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Touba, Nur A
Course & Unique Number: E E360C (76595)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2016
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 33
Number of survey forms *returned: 18
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (38.9%)	11 (61.1%)	18	4.6	4.5	4.4	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (22.2%)	14 (77.8%)	18	4.8	4.6	4.5	4.6
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	1 (5.6%)	6 (33.3%)	11 (61.1%)	18	4.6	4.4	4.3	4.4
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	2 (11.8%)	6 (35.3%)	9 (52.9%)	17	4.4	4.5	4.5	4.5
The instructor was available to students either electronically or in person.	0 (0.0%)	1 (5.6%)	2 (11.1%)	5 (27.8%)	10 (55.6%)	18	4.3	4.6	4.5	4.6
The course was well organized.	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (27.8%)	13 (72.2%)	18	4.7	4.4	4.3	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	1 (5.6%)	5 (27.8%)	12 (66.7%)	18	4.6	4.6	4.5	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	1 (5.6%)	1 (5.6%)	5 (27.8%)	11 (61.1%)	18	4.4	4.1	4.3	4.3
Overall, I learned a great deal in this course.	0 (0.0%)	0 (0.0%)	1 (5.6%)	4 (22.2%)	13 (72.2%)	18	4.7	4.5	4.4	4.5

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	2 (11.1%)	6 (33.3%)	10 (55.6%)	18	4.4	4.4	4.3	4.4
Overall, this course was	0 (0.0%)	0 (0.0%)	3 (16.7%)	9 (50.0%)	6 (33.3%)	18	4.2	4.1	4.0	4.2

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	0 (0.0%)	16 (88.9%)	1 (5.6%)	1 (5.6%)	18	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.

The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.

Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

CIS Individual Results

Survey Details

Instructor: Touba, Nur A
Course & Unique Number: E E360C (76225)
Organization: Electrical Engineering
College/School: Engineering
Semester: Summer 2017
Grade-eligible enrollment (may be < # forms distributed per 12th class day enrollment): 34
Number of survey forms *returned: 15
*Eligible paper CIS=correct form + completed in pencil

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Number of respondents	Average	Organization Average	College/School Average	University Average
The instructor clearly defined and explained the course objectives and expectations.	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (46.7%)	8 (53.3%)	15	4.5	4.5	4.5	4.5
The instructor was prepared for each instructional activity.	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (33.3%)	10 (66.7%)	15	4.7	4.4	4.5	4.6
The instructor communicated information effectively.	0 (0.0%)	0 (0.0%)	1 (6.7%)	8 (53.3%)	6 (40.0%)	15	4.3	4.1	4.4	4.5
The instructor encouraged me to take an active role in my own learning.	0 (0.0%)	0 (0.0%)	5 (33.3%)	3 (20.0%)	7 (46.7%)	15	4.1	4.4	4.6	4.5
The instructor was available to students either electronically or in person.	0 (0.0%)	0 (0.0%)	2 (13.3%)	5 (33.3%)	8 (53.3%)	15	4.4	4.5	4.6	4.6
The course was well organized.	0 (0.0%)	0 (0.0%)	1 (6.7%)	4 (26.7%)	10 (66.7%)	15	4.6	4.3	4.3	4.4
The instructor made me feel free to ask questions, disagree, and express my ideas.	0 (0.0%)	0 (0.0%)	1 (6.7%)	5 (33.3%)	9 (60.0%)	15	4.5	4.5	4.6	4.5
The course materials (e.g., text and supplemental materials) were helpful to me.	0 (0.0%)	1 (6.7%)	2 (13.3%)	5 (33.3%)	7 (46.7%)	15	4.2	4.0	4.3	4.4
Overall, I learned a great deal in this course.	0 (0.0%)	0 (0.0%)	2 (13.3%)	6 (40.0%)	7 (46.7%)	15	4.3	4.4	4.5	4.5

Question	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Good	Excellent	Number of respondents	Average	Organization Average	College/School Average	University Average
Overall, this instructor was	0 (0.0%)	0 (0.0%)	4 (26.7%)	4 (26.7%)	7 (46.7%)	15	4.2	4.1	4.4	4.4
Overall, this course was	0 (0.0%)	0 (0.0%)	6 (40.0%)	6 (40.0%)	3 (20.0%)	15	3.8	3.9	4.2	4.2

Question	Excessive	Somewhat high	About right	Somewhat light	Insufficient	Number of respondents	Average	Organization Average	College/School Average	University Average
In my opinion, the workload in this course was:	0 (0.0%)	2 (13.3%)	11 (73.3%)	2 (13.3%)	0 (0.0%)	15	N/A	N/A	N/A	N/A

Guide to the Interpretation of the Course Instructor Surveys at UT Austin

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```
Strongly Disagree...........1
Disagree....................2
Neutral.....................3
Agree.......................4
Strongly Agree..............5


Excessive
High
Average
Light
Insufficient


Very Unsatisfactory.........1
Unsatisfactory..............2
Satisfactory................3
Very Good...................4
Excellent...................5
```

The Average (AVG) is calculated by adding all of the weights for a single question and dividing by the number of respondents. The course workload question is not averaged.
The number of students marking each option is reported for each of the items. These frequency distributions provide information about the level of student ratings and the spread and shape of the class distribution of responses. The distributions thus provide a general picture of how the class is viewed by students; e.g., Are student ratings toward the top of the scale? Is there a relatively large proportion of unsatisfactory ratings? Students will find that there are definite differences in the rating patterns of various courses.
Course-Instructor Surveys have been shown to be a valid indicator of teaching effectiveness. However, most experts on teaching evaluation advise that no one method gives the complete picture of an instructor's teaching ability; multiple measures, on multiple occasions, are advised to give a full picture of the teaching effectiveness of a particular instructor. Moreover, other factors, such as size of class, level of the class, and content of the course, can cause small variations in the ratings. Thus while the results reported for the Basic Form items can be useful in selecting courses, the results for a particular instructor should not be interpreted as providing complete information on the teaching effectiveness of that instructor.

EXHIBIT 36

THE UNIVERSITY OF TEXAS AT AUSTIN   Date: 9/4/13

RECOMMENDATION FOR CHANGE IN ACADEMIC RANK/STATUS

Name: Mikhail Belkin   Present Rank: Assistant Professor

Years of Academic Service *(Include AY 2013-14 in each count)*:

At UT Austin since: 9/1/08   In present rank: 6   ; In Probationary Status (TT **only**): 6
      (m/d/y)   (# of years)   (# of years)

Department: Electrical and Computer Engineering

Other: _____

College/School: Cockrell School of Engineering

Recommended action[1]:

    By Budget Council/Executive Committee: Promote to Associate Professor

    Vote[2] for promotion __27__ ; Against __0__ ; Abstain __0__ ; Absent __8__

    By Department Chair: Promote to Associate Professor

    By SBS Executive Committee: _____

    Vote[2] for promotion _____ ; Against _____ ; Abstain _____ ; Absent _____

    By Director: _____

    By College/School Advisory Committee: Promote

    Vote[2] for promotion 7 ; Against 0 ; Abstain 0 ; Absent 0

    By Dean: Promote

Administrative Action: Promote to Associate Professor

Date Action Effective: September 1, 2014
(To be submitted to the Board of Regents as part of the annual budget.)

By: _____   Date: 12/16/2013
         For the President

[1]See "Chart of Recommended Actions" for eligible recommended actions applicable to specific conditions and administrative levels.

[2]All votes are to be recorded as For, Against, or Abstain. (Note: unexplained abstentions will be interpreted as weak negative votes by the President's Committee.) Also record number of absent eligible voting members.

EVPP/4.13

Dean's Assessment
Mikhail Belkin
Department of Electrical and Computer Engineering

Mikhail Belkin received a BS degree in Applied Physics and Mathematics from the Moscow Institute of Physics and Technology in 1998, and MA (2000) and PhD (2004) degrees in Physics from the University of California at Berkeley. Between 2004 and 2008, Dr. Belkin was a postdoctoral fellow and a research associate in the School of Engineering and Applied Sciences at Harvard University. He was appointed an assistant professor at UT Austin in 2008.

Ten external review letters were submitted as part of the promotion dossier, five were suggested by the candidate and five were selected by the budget council. Seven reviewers are faculty at US universities, two are faculty at European universities, and one is a senior scientist at a DOD research laboratory. One reviewer is a member of NAE and another is a member of NAS.

Teaching
Dr. Belkin has taught one undergraduate course and two graduate courses: EE 325, *Electromagnetic Engineering* (three times); EE 396V, *Nanostructured Optoelectronics* (one time); and EE 383V, *Nonlinear Optics* (four times). His average overall instructor/course ratings for these courses are 3.67/3.30, 4.3/4.0, and 4.45/4.27, respectively. Dr. Belkin also supervised a three-student, senior design project team during the 2012 spring and summer semesters.

The weighted average/median instructor ratings in the Department of Electrical and Computer Engineering over the last five years are 4.06/4.08 for assistant professors teaching undergraduate courses and 4.22/4.36 for assistant professors teaching graduate courses.

Dr. Belkin's instructor ratings in EE 325 are below the department average for undergraduate courses; however, this course appears to be difficult to teach. Over the past six years, 31 sections of EE 325 have been offered by eight tenured and tenure-track faculty and only two faculty members have achieved an average instructor rating in EE 325 that exceeds the median for undergraduate courses in the department. The peer review report for EE 325 indicated that Dr. Belkin engaged the students and was very clear in his presentation of the material.

Research
Dr. Belkin's research focuses on novel optoelectronic and optomechanical devices, metamaterials, and photonic systems operating in mid-infrared (mid-IR) and terahertz (THz) spectra. His primary research contributions in rank are (1) room-temperature, compact THz lasers and (2) development of quantum cascade laser systems for mid-infrared molecular spectroscopy.

Dr. Belkin's publication record is excellent. Since joining the faculty at UT Austin, he has published 29 refereed journal publications in journals with high impact factors, including *Nature Communications, Applied Physics Letters,* and *IEEE Journals.* His career total is 56 journal papers. Dr. Belkin holds three patents and has submitted eight additional patent applications.

Dr. Belkin has secured research funding from highly competitive federal (NSF, DOD, DOE), state, and foundation programs. He serves as principal investigator on eight of these projects and co-PI on four. Total funding in rank is over $3.9 million and his share is nearly $2.5 million. Dr. Belkin's research impact has been recognized by several prestigious young investigator awards (Air Force Office of Sponsored Research, National Science Foundation, Texas Higher Education Coordinating Board, and Defense Advanced Research Projects Agency).

1

The external reviewers uniformly recognized the impact of Dr. Belkin's work in the area of quantum cascade lasers (QCL) for addressing high temperature operation and broadband tenability, and the use of QCLs to increase the spatial resolution in molecular spectroscopy:

Dr. James Coleman (University of Illinois at Urbana Champaign, NAE) writes, "For his research, Prof. Belkin has become a well-known and prolific contributor to the area of quantum cascade lasers. To be very clear, I am intending to send the message that the bar is set very high and Prof. Belkin is answering the challenge very well. He is bright, creative, and prolific."

Dr. Marlan O. Scully (Texas A&M University, NAS) writes, "In a short time Misha was able to build a highly-successful research group and, in my opinion, he is now the innovative and most accomplished scientist among his peers in the area of mid-infrared and THz photonics. I also consider Misha to be one of the most successful young scientists in photonics area in general."

Dr. Qing Hu (Massachusetts Institute of Technology) writes, "Dr. Belkin's group has developed a room-temperature THz source with ~0.1 mW and a broad tuning range of several THz … This is a significant development which could lead to compact THz sources with broad frequency coverage."

Dr. Dan Botez (University of Wisconsin-Madison) writes, "…a highly intelligent scientist possessed of a no-nonsense attitude of implementing new device concepts not only for achieving scientific breakthroughs but also for realizing novel devices of practical use. The future looks bright for Misha Belkin. Not only is he making breakthroughs in two fields (i.e., THz QCLs and molecular spectroscopy), but he has already positioned himself well for making significant contributions in the hot new applied-physics fields of plasmonics and metamaterials."

Advising and Student Mentoring

Dr. Belkin has graduated one PhD student and one MS student at UT. He is currently supervising four PhD students, three MS students, and one postdoctoral scholar.

Dr. Belkin also participates in the UTeachEngineering MA program in Science, Technology, Engineering, and Mathematics Education as a summer research supervisor. A high school teacher is performing MS thesis research in Dr. Belkin's laboratory through this program.

University Service

Dr. Belkin serves as the coordinator for the solid-state electronics graduate program in the Department of Electrical and Computer Engineering. In this capacity, he oversees the recruitment and admission of new graduate students and the PhD qualifying exams. In addition, he serves on the transition committee, which is managing the transition of the department from their existing facilities to the new Engineering Education and Research Center.

Professional Service

Dr. Belkin is currently serving as a co-chair of the 12th International Conference on Intersubband Transitions in Quantum Wells. He has also served on a number of conference program committees for international conferences and technical meetings. He currently serves as the chair of the Central Texas Chapter of the IEEE Photonics Society.

Other Evidence of Merit or Recognition

Dr. Belkin has been recognized by a number of competitive young investigator awards for his research potential and accomplishments. These include AFOSR young investigator research program award (2009), NSF CAREER award (2012), DARPA young faculty award (2012), and the Norman Hackerman early career

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investigator award (2012).   One of the references, Dr. James Coleman (NAE member) writes "Most young faculty would be delighted to receive one of these awards and Prof. Belkin has won four!"

Overall Assessment
Dr. Belkin has made several notable advances in the areas of novel optoelectronic devices and photonic systems operating in the mid-infrared and terahertz spectra. He has secured research funding from highly competitive federal and non-federal sources. External letters uniformly support his tenure and promotion and indicate that he has become a leader in his field of research with a productivity and impact significantly above his peers.

Accordingly, I am pleased to provide a strong recommendation to promote Mikhail Belkin to associate professor with tenure.

Sharon L. Wood, Interim Dean
31 October 2013

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EXHIBIT 37

THE UNIVERSITY OF TEXAS AT AUSTIN

RECOMMENDATION FOR CHANGE IN ACADEMIC RANK/STATUS

Name:___Tiwari, Mohit___ EID:___mt28295___ Present Rank:__Assistant Professor__

Years of Academic Service *(Include AY 2018-19 in each count)*:

At UT Austin since:_9/1/2013_(month/day/year) Total Years at UT Austin:_6_

In Present Rank since:_9/1/2013_(month/day/year) Total Years in Present Rank:_6_

Tenure-track only:
Number of Years in Probationary Status:_6_

Additional information:__N/A__

Primary Department:_Electrical and Computer Engineering__

College/School:_Engineering, Cockrell School of_

Joint Department:_N/A__

College/School:_N/A__

Other Department(s):_N/A__

Recommendation actions[1]:

By Budget Council/Executive Committee:__Promote_____

Vote[2] for promotion_32; Against_0; Abstain_3; Absent_0_; Ineligible to vote_2

By Department Chair:__Promote_____

By College/School Advisory Committee:__Promote_____

Vote[2] for promotion_7_; Against_0_; Abstain_0_; Absent_0__; Ineligible to vote_0_

By Dean:__Promote_____

Administrative Action:_____**Promote to Associate Professor**_____

Date Action Effective: September 1, 2019_____
(To be submitted to the Board of Regents as part of the annual budget.)

By:_____ Date:___February 15, 2019___
        For the President

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[1]See "Chart of Recommended Actions" for eligible recommended actions applicable to specific conditions and administrative levels.
[2]Record all votes for and against promotion, abstentions by eligible voting members, and the number of absent eligible voting members. The number of committee members ineligible to vote should also be recorded. Enter zero where it would otherwise be blank.

EVPP/4.15

The University of Texas at Austin
Cockrell School of Engineering

Dean's Assessment
Mohit Tiwari
Department of Electrical and Computer Engineering
Cockrell School of Engineering

Dr. Mohit Tiwari received his BTech in computer science and engineering in 2005 from the Indian Institute of Technology, Guwahati, and his MS and PhD in computer science from the University of California, Santa Barbara in 2010 and 2011, respectively. He was a post-doc at the University of California, Berkeley for two years before joining the Department of Electrical and Computer Engineering (ECE) as an assistant professor in September 2013. If promoted to associate professor in September 2019, he will have accumulated six years of probationary service.

Dr. Tiwari's research focuses on developing secure computer systems. The proliferation of computer systems, including social and cloud computing, has exacerbated security vulnerabilities. Traditional techniques of patching vulnerabilities as they are identified is no longer a sustainable approach to building secure computer systems that are needed for the healthcare, election, and mobile computing systems of the future. Dr. Tiwari has made important advances toward developing the hardware and software systems necessary to protect data. Important developments include architectural mechanisms that enable information-leak-free hardware enclaves, containerized data for web services, and anomaly-detection mechanisms. His work is directly related to one of the Cockrell School's four priority research areas: advancing intelligent systems and man-machine symbiosis.

Ten external letters were submitted as part of the promotion dossier, with six letter writers selected by the budget council. Nine letter writers are current or previous faculty members at peer universities in the US, and one is a principal research scientist at Visa Research.

Several connections exist between the letter writers and Dr. Tiwari, but I consider all of them to be arm's length reviewers:

- John Kubiatowicz (UC Berkeley) is technically not arm's length, as he is a co-author on a 2013 conference paper. As explained in the dossier, Dr. Tiwari was a post-doc at Berkeley when the research was conducted and Dr. Kubiatowicz was the co-advisor of one of the graduate students with whom Dr. Tiwari collaborated directly. However, Dr. Tiwari did not collaborate directly with Dr. Kubiatowicz.
- In his letter, Onur Mutlu (ETH Zürich and Carnegie Mellon) refers to a 2016 invited paper that summarized the topics presented during a conference session that he co-authored with Dr. Tiwari. This paper was a compilation of information presented by others and represents an editorial, rather than technical, collaboration.
- David Brooks (Harvard), Scott Mahlke (Michigan), Moinuddin Qureshi (Georgia Tech), and Dr. Tiwari are associated with C-FAR (Center for Future Architectures Research) at the University of Michigan. The center engages faculty at many universities (Michigan, Columbia, Duke, Georgia Tech, Harvard, Illinois, MIT, Princeton, Stanford, UC-Berkeley, UCLA, UC-San Diego, UT, Virginia, and Washington), and it does not appear that Dr. Tiwari has collaborated directly with any of the letter writers.

Teaching

While in rank, Dr. Tiwari taught one required undergraduate course and one graduate elective. He also organized a Freshman Research Initiative stream through the College of Natural Sciences, and served as a mentor. The CIS data from the FRI courses will not be addressed, because Dr. Tiwari was not directly responsible for teaching the courses.

Dr. Tiwari's instructor ratings have oscillated between 3.5 and 4.6 in the undergraduate course. In his teaching statement, Dr. Tiwari addressed the challenges he has faced in teaching the embedded systems course and the changes that he has made to improve the student satisfaction. He solicits feedback from the students throughout the semester, and appears to be receptive to their suggestions. His most challenging semester (Spring 2017) also corresponded to the largest number of students (78) in the class. He seems to have addressed the students' primary concerns, as his average instructor rating was much higher in Spring 2018.

Dr. Tiwari's teaching at the graduate level has been consistently strong.

Research

Dr. Tiwari has established a very strong, externally funded research program at UT. Key metrics include:

- 12 peer-reviewed proceedings at highly selective conferences in rank (22 total).[1] He published 8 conference papers with his students/post-docs at UT.
- 2 archival journal publications in rank (6 total). He published one journal paper with his students/post-docs at UT.
- He has published papers in highly selective conferences related to computer architecture and computer security, including International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), ACM Conference on Computer and Communications Security (CCS), IEEE International Symposium on Hardware Oriented Security and Trust (HOST), International Symposium on High Performance Computer Architecture (HPCA), International Symposium on Computer Architecture (ISCA), International Symposium on Microarchitecture (MICRO), and USENIX Security Symposium.
- An h-index of 19 (Google Scholar) and 1,271 citations.[2]

While in rank, Dr. Tiwari has secured 15 research grants/gifts totaling more than $5 million in external funding (his share is $3.5 million) from a wide variety of sources including three federal agencies[3] and industry. He is the PI on 14 of the grants. Three of his current grants extend beyond the end of the 2018-19 academic year, including two from NSF and one from DARPA.

The letters from the external reviewers were positive and addressed the impact of Dr. Tiwari's work and his reputation as an emerging leader. One reviewer made comments that can be considered to be critical, but he qualified his observation and recommended promotion:

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[1] Refereed conference papers in highly selective conferences are the primary mechanism for disseminating research results in the fields of computer architecture and cyber security.

[2] Dr. Tiwari's most highly cited paper has 165 citations and is based on work completed during his graduate studies at UC-Santa Barbara. His most highly cited paper published in rank at UT has 78 citations.

[3] Defense Advanced Research Projects Agency (DARPA), National Science Foundation (NSF), and National Security Agency (NSA)

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- John Kubiatowicz (Electrical Engineering and Computer Science, UC Berkeley) expressed some concerns about Dr. Tiwari's publication record, "his last 5 years have been fairly productive ... Mohit's paper count may be a bit lower than others in a similar position, but I'd say that it is more than sufficient."

Advising and Student Mentoring

Dr. Tiwari graduated one PhD student and three MS students. He co-mentored one postdoctoral fellow. He is currently advising seven PhD students (one co-supervised) and one MS student. He has also integrated undergraduate students into his research team with three to five students participating each year.

University Service

Dr. Tiwari's service to the university has primarily been related to faculty recruiting and graduate student recruiting. He has also been actively engaged in curriculum reform/development within ECE.

Professional Service

Dr. Tiwari is a member of several professional societies and actively serves on the program committees for top conferences in computer architecture and cybersecurity. He also serves as an associate editor for the *ACM Transactions of Code Optimization*.[4]

He contributes to the central Texas community by serving as a cybersecurity advisor for startups and Dell Children's Hospital.

Other Evidence of Merit or Recognition

Dr. Tiwari received a CAREER award from NSF in 2015 and he has received faculty research awards from Google (2014) and Qualcomm (2017). Several of his papers have been recognized with best paper awards.

Overall Assessment

Dr. Tiwari has established an outstanding reputation in computer architecture and cyber security. He has been extremely successful in securing external funding to sustain his research efforts. His teaching record is solid, and he is mentoring a large research group. He has provided excellent service to UT and professional communities within his field.

Overall, I believe that Dr. Tiwari's performance meets expectations in the area of teaching and exceeds expectations in the areas of research and service. Accordingly, I am pleased to provide my strong recommendation that Dr. Tiwari be promoted to associate professor with tenure.

Sharon L. Wood, Dean
10 November 2018

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[4] The editorial board for ACM TACO includes 22 associate editors from around the world.

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Candidate's Summary of Activities
Mohit Tiwari
Assistant Professor, ECE Department
UT Austin

Metric	Value
Peer-reviewed journal publications (in rank and total) ***	2+1 / 6+1
Peer-reviewed conference proceedings (in rank and total)	12 / 22
Number of journal papers in rank with supervised student(s) and/or post-docs from UT as co-author(s) ***	*1 + 1*
Number of journal papers in rank with supervised student(s) from UT as co-author ***	1 + 1
Total citations of all publications (career) from ISI Web of Knowledge *****	178
Largest number of citations for a single paper based on work at UT (ISI Web of Knowledge) *****	*29*
h-index (career) from ISI Web of Knowledge *****	7
Total citations of all publications (career) from Google Scholar (as of July 28, 2018)	1150
Largest number of citations for a single paper based on work at UT (Google Scholar)	*145*
h-index (career) from Google Scholar	18
Total external research funding raised in rank	$ 5.05M
Total external research funding raised in rank (candidate's share)	$ 3.56M
Total number of external grants/contracts awarded in rank	15
Number of external grants/contracts awarded in rank as PI	14
PhD students completed *(sole supervisions and co-supervisions)*†	*1 / 0*
MS students completed *(sole supervisions and co-supervisions)*†	*3 / 0*
PhD students in pipeline *(sole supervisions and co-supervisions* as of *8/31/2018*) †	*6 / 1*
MS students in pipeline *(sole supervisions and co-supervisions* as of *8/31/2018*) †	*1 / 0*
Number of courses taught	8
Total number of students taught in organized courses	291
Average instructor rating for undergraduate courses	4.05
Average instructor rating for graduate courses	4.25
Average course rating for undergraduate courses	3.85
Average course rating for graduate courses	4
Number of teaching awards	0
Student organizations advised	0
Undergraduate researchers supervised *******	13 + 1
Service on journal editorial boards	2
Number of symposia organized	1

NOTES:

*** +1: invited paper to Transactions on Computer Science (TOCS) based on ASPLOS'15 Best Paper Award ("Ghostrider: A hardware-software system for memory trace oblivious computation"). The paper has been invited and pre-accepted but it is in preparation and hence not listed in the CV.

***** ISI Web of Knowledge is missing crucial papers (#2 and #8 from Google Scholar ordered by citation count, and likely others); it has far lower citation counts than Google Scholar for the same papers, and has a different set of papers when ordered by citation count.

******* Undergraduate researchers list comprises of 11 funded summer and school-year positions, 2 unfunded students, and +1 is an undergraduate from Rice University.

Mohit Tiwari

Budget Council Statement on Teaching for Faculty Promotion Candidate
Mohit Tiwari

This assessment of Assistant Professor Mohit Tiwari's teaching contributions was prepared by Budget Council Member Professor Jonathan Valvano.

Principal area of teaching.
Dr. Tiwari's principal area of teaching is in computer engineering in general and architecture, security, and embedded systems in specific. As an assistant professor, he has taught three different courses: two lower division required undergraduate classes and one advanced graduate class.

Evaluation process.
I based this statement on review of Dr. Tiwari's teaching statement and portfolio, personal experiences, in-class peer evaluations, student course/instructor evaluations for the last five years, as well as my own first-hand experience working together teaching different sections of the same class and my understanding of curricular matters because of my role on the ECE curriculum committee and as undergraduate advisor. I also personally observed his class on 3/6/2017 and 3/19/2018. I have co-taught EE319K with Professor Tiwari three times, and in so doing I have sat in EE319K planning/TA meetings with him dozens of times.

Teaching Evaluation Procedures and Measures
The department uses course evaluation surveys and peer evaluations. It is normal practice to conduct official course evaluations at the conclusion of every class. In spring semesters, EE319K is a large enrollment class with 5 sections. I was one of the instructors Spring 2015, Spring 2016, and Spring 2018 along with Professor Tiwari. Since we have shared homework, shared labs and shared exams, I can attest that Professor Tiwari's students were well-taught each of these three semesters. I think his teaching evaluations capture an accurate representation of his teaching.

Peer evaluations are conducted nominally once per academic year. Peer evaluations are made by tenured professors after a visit to the classroom. The times and dates of these visits are agreed to beforehand so that there are no surprise visits.
- Professor Valvano observed EE319K, Embedded Systems during Spring 2015
- Professor Akinwande observed EE319K, Embedded Systems during Spring 2016
- Professor Valvano observed EE319K, Embedded Systems during Spring 2017
- Professor Valvano observed EE319K, Embedded Systems during Spring 2018

Summary of Teaching Evaluations
The main indicator on the Course Evaluation Surveys used to evaluate teaching performance is the Overall Instructor Rating. His in-rank instructor ratings are summarized in Table 1. The GPA for EE319K, the undergraduate required class, is purposely adjusted to be about 3.0 for all sections. Also, this GPA is consistent with other classes at this level. Therefore, I believe there is no bias in evaluation scores caused by

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Mohit Tiwari

perceived grade expectations. The average size of his graduate class is 14 students, slightly less than equal to the department average of 17.6.

His weighted average undergraduate instructor rating is 3.98 out of 5, and his weighted average graduate rating is 4.22 out of 5. His performance is less than the department average for undergraduate courses (Spring 2018 ECE average = 4.22) and slightly below the department average for graduate courses (Spring 2018 ECE average = 4.46). In summary, his undergraduate ratings are acceptable and his graduate instructor ratings are excellent.

Semester	Course	#Answered / #Enrolled	Overall instructor rating	Overall course rating
Spring 2015	EE 319K	26/41	3.8	3.6
Spring 2016	EE 319K	30/39	4.3	4.2
Spring 2017	EE 319K	18/78	3.5	3.3
Spring 2018	EE 319K	42/61	4.6	4.3
Spring 2015	EE309K	15/16	3.6	4.0
Fall 2013	EE 382V	9/9	4.5	4.5
Fall 2014	EE 382V	10/18	4.0	3.9
Fall 2015	EE 382V	13/19	4.2	3.8
Fall 2017	EE 382V	23/26	4.3	3.8

Table 1. CIS results for undergraduate and graduate teaching. EE319K is Introduction to Embedded Systems, EE309K is System Security. and EE382V is Security Hardware-Software Interfaces.

Example negative comments from his CIS (undergrad EE309K)
    "Rarely showed up for class" (EE309K was team taught)

EE309K was not a traditional lecture course. EE309K was the number that ECE students used when taking the freshman research initiative stream involving system security. Dr Tiwari was involved in organizing this effort, but was not the lead teacher. The CIS numbers reflect that the students felt positive about the opportunity but may have been confused on how to rate Dr. Tiwari as the instructor. Including just his EE319K courses, his weighted undergraduate instructor CIS average is 4.01.

Typical positive comments from his CIS (undergrad EE319K)
    "learned a lot"
    "constantly challenged us with class problems"
    "awesome"
    "lectures were great and well organized"
    "super approachable"

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Mohit Tiwari

"very approachable"
"knowledgeable and excited about course material"
"encouraged to take control of my own learning"
"cares about his students"
"extremely passionate about both the course material and helping students learn"

Typical negative comments from his CIS (undergrad EE319K)
"covering more material from labs would be beneficial"
"not well-structured"
"put more emphasis on lab related course material"
"he has bad handwriting"
"the first lectures were good, the quality continually declined; do not regret skipping"

Typical positive comments from his CIS (grad EE382V)
"Enthusiastic"
"Learned a lot"
"Explains very clearly"
"was very effective"
"enjoyed the discussions"
"one of the best teachers so far"

Example negative comments from his CIS (grad EE382V)
"Much of the material… went over my head"
"This course was incredibly difficult and time consuming"
"Labs were disorganized, but I learned from them"
"could be more structured"
"need to be more organized"

Summarizing quotes from Professor Valvano's Spring 2015 visit (exact date unknown)
"Lectures are extremely engaging. He gives a high-level overview of what they will be learning and how the educational components fit together. During lecture, he can get lost in the calculations and would benefit by working out the details in advance."

Summarizing quotes from Professor Akinwande's in class visit. April 6, 2016
"He spoke in a very casual sense that was very interactive with the students and approachable. The instructor repeated student questions to ensure it was clear to all. The lecture was often very interactive in that many students could respond to or ask questions without the need to raise hands. It was a very engaging lecture on Analog to Digital conversion and Sampling theorem. Examples were solved together in class. There were also in-class practice programming functions. Afterward, the programming concepts and methods were discussed collectively."

Summarizing quotes from Professor Valvano's in class visit. March 6, 2017
"He used a mixture of PowerPoint slides and blackboard. The students were very engaged with the game example and later, they were engaged with the prospect of creating sound. Students felt safe to ask and answer questions." *Negatives*:

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Mohit Tiwari

"Write things on the board you want them to copy into their notes. Your message on the blackboard can be scattered."

Summarizing quotes from Professor Valvano's in class visit. March 19, 2018
"He was very positive responding to students ("great, great, great", "that is wonderful", smiling, "great, that is a very good question"). His delivery was articulate. He used PowerPoint slides for structure, but wrote a lot on the white board. He paused frequently and asked for questions. He did an in-class short quiz to see if students understood the key concepts (just 5 minutes). The professor and TAs walked around answering questions." *Negatives*: "White board management and size of writing. From the weekly meetings, I see he teaches more basic fundamentals rather than delve into the details of how to execute lab assignments. Consequently, his students may learn more, but require more effort to figure out stuff on their own (and may have contributed to the lower scores)."

Response to Student and Peer Evaluation Leads to Continuous Improvement
There are not a lot of negative comments about Professor Tiwari's teaching, but one theme that exists is his lecture organization. Both peer review and student evaluations suggest he work on organizing his lectures. When he made adjustments to his lecture, the response was positive.

One of the difficult concepts in EE319K is teaching C programming to students with no prior programming experience other than EE306/BME303. Basically, the problem is there are some students with extensive programming experience and others who just have this one prerequisite class (EE306/BME303) on assembly programming and computer architecture. Professor Tiwari approaches teaching software design first by example and then by having students work exercises in class. His students appreciated his desire to make them think beyond the details of the course.

Teaching Portfolio
There are three aspects of Professor Mohit Tiwari's teaching portfolio that demonstrate he is an effective and passionate educator. First, it is clear he cares about his students individually. He demonstrates a sincere desire that they learn, and rejoices when they do. Second, he is willing to experiment with his teaching style. He not only tries new approaches but also evaluates the outcomes of the effort to know what works and what doesn't work. Third, he has a fundamental grasp of both the level of our student population and what our students need to be successful in their careers. He uses these incites to design an effective approach when teaching his courses.

Comparison to Other Assistant Professors in the Department:
The CIS scores for Dr. Tiwari are slightly lower than the other assistant professors. However, his teaching service (new course on security, and the freshman research initiative stream) place him on or above efforts from other assistant professors in the department.

Mohit Tiwari

Describe participation on graduate committees
Professor Mohit Tiwari has one PhD student who passed the defense. He has one PhD student in candidacy. He has eight PhD-bound students in the pipeline. He supervised three MS thesis students in rank that have graduated.

Conclusions
There are many dimensions to the teaching contributions of a professor, some measurable quantitatively, some measurable qualitatively. On every dimension, Professor Tiwari's contributions put him well above the bar: his approach to teaching not only what but why, his passion for getting students to learn, his mentoring of individual students, his desire to improve his classroom teaching skills, and his constant desire to innovate his teaching. Professor Tiwari demonstrates the excellence that clearly supports this promotion.

Summary prepared by Budget Council Member Professor Jonathan Valvano.

Jonathan Valvano

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Mohit Tiwari
Department of Electrical and Computer Engineering
Course Rating Averages

Mohit Tiwari (mt28295). Assistant Professor. ECE Department.
What source was used to complete this chart? My CIS

EE319K: Introduction to Embedded Systems

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
Spring 2015	41	26	3.8	3.6
Spring 2016	39	30	4.3	4.2
Spring 2017	78	18*	3.5	3.3
Spring 2018	61	42	4.6	4.3
Mean	**55**	**33**	**4.05**	**3.85**

* CIS forms completed electronically outside of class. Hence the low turnout compared to other years.

EE 382V: Security at the Hardware-Software Interface

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
Fall 2013	9	9	4.5	4.5
Fall 2014	18	10	4.0	3.9
Fall 2015	19	13	4.2	3.8
Fall 2017	26	23	4.3	3.8
Mean	**18**	**14**	**4.25**	**4.00**

EE309K, CS 378: Systems Security Freshman Research Initiative (FRI) Stream

Semester	Class Size	Number of Responses	Instructor Rating	Course Rating
Spring 2015	16	15	3.6	4.0
Fall 2015	15	3	3.0	3.3
Fall 2016	10	2	5.0	4.5
Mean	**14**	**7**	**3.87**	**3.93**

Note: FRI courses are taught by Research Educator (RE) with me as a mentor. My CIS scores here are thus not representative of my undergraduate teaching.

Table 1. Research Summary

Metric	Value
Peer-reviewed journal publications (in rank and total) ***	2+1 / 6+1
Peer-reviewed *(journal-equivalent)* conference proceedings (in rank and total)	12 / 22
Number of journal papers in rank with supervised student(s) and/or post-docs from UT as co-author(s)* ***	1+1
Number of journal papers in rank with supervised student(s) from UT as co-author* ***	1+1
Number of *journal-equivalent conference* papers in rank with supervised student(s) and/or post-docs from UT as co-author(s)*	8
Number of *journal-equivalent conference* papers in rank with supervised student(s) from UT as co-author*	7
Total citations of all publications (career) from ISI Web of Knowledge*****	178
Largest number of citations for a single paper based on work at UT (ISI Web of Knowledge)*****	29
h-index (career) from ISI Web of Knowledge*****	7
Total citations of all publications (career) from Google Scholar *(as of July 1, 2018)*	1119
Largest number of citations for a single paper based on work at UT (Google Scholar)	143
h-index (career) from Google Scholar	18
Total external research funding raised in rank (personal/total for UT)	$3.56M/$5.05M

NOTES:
*** +1: invited paper to Transactions on Computer Science (TOCS) based on ASPLOS'15 Best Paper Award ("Ghostrider: A hardware-software system for memory trace oblivious computation").

***** ISI Web of Knowledge is missing crucial papers (#2 and #8 from Google Scholar ordered by citation count, and likely others); it has far lower citation counts than Google Scholar for the same papers and has a different set of papers when ordered by citation count.

Table 2. Current External Grants and Contracts

Role of Candidate and Co-Investigators	Title	Agency	Project Total	Candidate's Share	Grant Period
PI: Mohit Tiwari	CAREER: Exo-Core: An Architecture to Detect Malware as Computational Anomalies	NSF CAREER	522,000	522,000	2015—2020
PI: Mohit Tiwari	SaTC: CORE: Medium: Guarding Noisy Neighborhoods with Weak Detectors	NSF	1,200,000	400,000	2017—2021
Co-PIs: Sanjay Shakkottai, Constantine Caramanis					
PI: Christine Julien	CSR: Medium: Extensible Distributed Systems Solutions for Community Supported Child-Independent Mobility	NSF	400,000	200,000	2017—2019
Co-PI: Mohit Tiwari					
PI: Mohit Tiwari	Cyber Security Research on Power Models	Lockheed Martin	500,000	166,000	2016—2018
Co-PIs: Michael Orshansky, Andreas Gerstlauer					
PI: Mohit Tiwari	Mobile Data Container	General Dynamics	166,000	166,000	2017—2019
PI: Mohit Tiwari	Ensembles of Moving Target Defenses for Scalable and Composable Hardware Security	DARPA	748,556	748,556	2018—2021
PI: Mohit Tiwari	Fine-Grained Contention Detection and Mitigation	Huawei-CS Systems Lab	124,000	62,000	2018—2019
Co-PI: Mattan Erez					
PI: Mohit Tiwari	PSigns: Power Channels for Malware Detection	Google award	50,000	25,000	gift
Co-PI: Vijay Reddi					
PI Mohit Tiwari	Hardware-based Malware Detection, Faculty award	Qualcomm award	125,000	125,000	gift
PI: Mohit Tiwari	Anomaly Detection for Cloud Radio Access Network	Huawei-WNCG	100,000	30,000	WNCG gift
Co-PIs: Sanjay Shakkottai, Constantine Caramanis					
Total			**3,935,556**	**2,444,556**	

Electrical and Computer Engineering   Revised September 17, 2018

GRANTS AND CONTRACTS: Total funding $5,049,282 at UT.
                          My share $3,558,282 at UT.

Acronyms in table below (in order of appearance in table):
- NSF: National Science Foundation
- SaTC: Secure and Trustworthy Cyberspace
- NSA: National Security Agency
- UMD: University of Maryland
- CAREER: Faculty Early Career Development Program
- C-FAR: Center for Future Architectures Research (https://www.futurearchs.org/)
- I-Corps: NSF Innovation Corps
- DARPA: Defense Advanced Research Projects Agency
- SSITH: System Security Integrated Through Hardware and Firmware
- NSF CSR: National Science Foundation Computer Systems Research

Co-Investigators	Title	Agency	Grant Total	Period
None	"Digital Insertion and Observation Resistant Execution (DIORE)"	NSF SaTC program	$416,000	08/01/13 – 07/31/17
None	"Human Reasoning about Privacy and Security"	NSA Lablet at UMD	$62,726	02/07/14 - 07/31/17
V.J. Reddi	Power Signatures for Mobile Malware Detection	Google Research Award	$50,000 ($25,000 total PI share)	2014
None	"Exo-Core: An Architecture to Detect Malware as Computational Anomalies"	NSF CAREER award	$522,000	03/01/15 - 02/29/20
None	"Architectures to Protect Data in Motion"	C-FAR Center UMichigan	$485,000	05/07/15 – 12/31/17
None	"I-Corps: Trustworthy Cyberspace through Data-security as a Service"	NSF I-Corps	$50,000	09/01/15 - 02/29/16
M. Orshansky, A. Gerstlauer	"Cybersecurity Research on Power Models"	Lockheed Martin	$500,000 ($166,000 total PI share)	10/31/16 - 08/15/18
S. Shakkottai, C. Caramanis	Anomaly Detection for Cloud Radio Access Network (Cloud-RAN)	Huawei	$100,000 ($30,000 total PI share)	2016

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None	"Hardware Introspection Mechanisms for Debugging and Security"	Samsung	$100,000	01/31/16 – 06/01/17
S. Shakkottai, C .Caramanis	"SaTC: CORE: Medium: Guarding Noisy Neighborhoods with Weak Detectors"	NSF SaTC	$1,200,000 ($400,000 total PI share)	03/01/17 - 02/29/21
None	Malware Detection	Qualcomm gift, Faculty Award	$125,000	2017
None	Mobile Data Containers	General Dynamics	$166,000	06/30/17 – 08/31/19
None	Ensembles of Moving Target Defenses	DARPA SSITH program	$748,556	10/31/17 - 01/15/21
PI C. Julien	CSR: Medium: Extensible Distributed Systems Solutions for Community Supported Child-Independent Mobility"	NSF CSR #1703497	$400,000 ($200,000 total PI share)	09/01/17 - 08/31/19
Mattan Erez	Fine-grained Contention Detection and Mitigation	Huawei CS Systems Lab	$124,000 ($62,0000 total PI share)	08/01/18 - 07/31/19

PH.D. SUPERVISIONS COMPLETED:

Kazdagli, Mikhail	June 2018	Robust Behavioral Malware Detection	Electrical and Computer Engineering	The University of Texas at Austin

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Table 3. External Grants and Contracts Awarded in Rank and Completed

Role of Candidate and Co-Investigators	Title	Agency	Project Total	Candidate's Share	Grant Period
PI: Mohit Tiwari	TWC: Medium: Collaborative Research: DIORE: Digital Insertion and Observation Resistant Execution	NSF	416,000	416,000	2013—2017
PI: Mohit Tiwari	Establishing a Science of Security Research Lablet at The University of Maryland - Human Reasoning about Privacy and Security	NSA	62,726	62,726	2014—2017
PI: Mohit Tiwari	Hardware Introspection Mechanisms for Debugging and Security	Samsung	100,000	100,000	2016—2017
PI: Mohit Tiwari	I-Corps: Trustworthy Cyberspace through Data-security as a Service	NSF	50,000	50,000	2015—2016
PI: Mohit Tiwari	Architectures to Protect Data in Motion	C-FAR Center at University of Michigan	485,000	485,000	2015—2017
TOTAL			1,113,726	1,113,726	

Table 4. Pending External Grants and Contracts

Role of Candidate and Co-Investigators	Title	Agency	Project Total	Candidate's Share	Grant Period
PI: Mohit Tiwari (UIUC Co-PI: Chris Fletcher)	Intel ISRA: Oblivious Instruction Set Architectures	Intel	300,000	300,000	2018—2021
PI: Mohit Tiwari (UIUC Co-PI: Chris Fletcher)	SaTC: CORE: Small: Collaborative: Oblivious ISAs for Secure and Efficient Enclave Programming	NSF	500,000	250,000	2018—2021
PI: Mohit Tiwari	Mobile Data Containers Year 2	General Dynamics	217,000	217,000	2018—2019
PI: Mohit Tiwari	Cyber Security Research on Power Models	Lockheed Martin	250,000	83,000	2018—2019
Co-PIs: Michael Orshansky, Andreas Gerstlauer					
TOTAL			1,267,000	850,000	

EXHIBIT 38

THE UNIVERSITY OF TEXAS AT AUSTIN   Date:_9/1/2016_

RECOMMENDATION FOR CHANGE IN ACADEMIC RANK/STATUS

Name:___Foster, John T.___ EID:___jf28456___ Present Rank:___Assistant Professor___

Years of Academic Service *(Include AY 2016-17 in each count)*:

At UT Austin since: 9/1/2014_ (month/day/year) Total Years at UT Austin:_3_

In Present Rank since: 9/1/2014_(month/day/year) Total Years in Present Rank:_3_

Tenure-track only:
Number of Years in Probationary Status:_3_

Additional information:__Accelerated__

Primary Department:_Petroleum and Geosystems Engineering__

College/School:_Engineering, Cockrell School of__

Joint Department:_N/A__

College/School: N/A__

Other Department(s):_Aerospace Engineering and Engineering Mechanics__

Recommendation actions[1]:

   By Budget Council/Executive Committee:___Promote___

   Vote[2] for promotion_9_; Against_0_; Abstain_0_; Absent_0_; Ineligible to vote_1_

   By Department Chair:___Promote___

   By College/School Advisory Committee:___Do Not Promote___

   Vote[2] for promotion_1_; Against_6_; Abstain_0_; Absent_0_; Ineligible to vote_0_

   By Dean:___Promote___

Administrative Action:___Promote to Associate Professor___

Date Action Effective: September 1, 2017_____
(To be submitted to the Board of Regents as part of the annual budget.)

By:_____ Date: December 15, 2016
       For the President

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[1]See "Chart of Recommended Actions" for eligible recommended actions applicable to specific conditions and administrative levels.
[2]Record all votes for and against promotion, abstentions by eligible voting members, and the number of absent eligible voting members. The number of committee members ineligible to vote should also be recorded. Enter zero where it would otherwise be blank.

Dean's Assessment
John T. Foster
Department of Petroleum and Geosystems Engineering
Cockrell School of Engineering

Dr. John Foster received his BS and MS in Mechanical Engineering from Texas Tech University in 2002 and 2004, respectively, and his PhD in Aeronautics and Astronautics from Purdue University in 2009. Dr. Foster was a member of the technical staff at Sandia National Laboratories for seven years (2004-2011)[1]. Dr. Foster also held an adjunct faculty position at the University of New Mexico for the 2010-11 academic year.

Dr. Foster was appointed as an assistant professor in the Department of Mechanical Engineering at the University of Texas at San Antonio (UTSA) in September 2011. In September 2014, he joined the faculty in the Department of Petroleum and Geosystems Engineering at the University of Texas at Austin (UT) as an assistant professor. In January 2015, he received a courtesy appointment in the Department of Aerospace Engineering and Engineering Mechanics (ASE/EM). He is also an affiliated faculty member in the Institute for Computational Engineering and Sciences (ICES).

If successfully promoted to associate professor in September 2017, he will have accumulated three years of probationary service at UT, and he will have served in rank as an assistant professor (at UTSA and UT) for a total of 6 years. While this case is considered to be an early promotion when considering Dr. Foster's time at UT only, his total time in rank is consistent with our normal timeline.

Fifteen external review letters were requested. Seven letters were received, seven requests were declined, and one person did not respond. Of the letters received, four reviewers were selected by the budget council, one was selected by the department chair, and two were recommended by Dr. Foster. Of the declinations, two reviewers were selected by the budget council, two reviewers were selected by the department chair, and three were recommended by Dr. Foster.

Five letter writers are faculty at US universities: Minnesota, Illinois, Penn State, Oklahoma, and Texas A&M. One letter writer is a distinguished member of the technical staff at Sandia National Laboratories, and one is a retired senior fellow from ConocoPhillips. Two of the letter writers are members of the National Academy of Engineering (NAE).

Teaching
Dr. Foster has taught two undergraduate courses at UT (PGE 334, *Reservoir Geomechanics*, and PGE 323M, *Reservoir Engineering III*) and one graduate course (PGE 379/383, *Advanced Geomechanics*). He has taught PGE 334 twice, with class sizes of 81 and 25 students, and instructor ratings of 3.4 and 4.3, respectively. Dr. Foster taught PGE 323M once, with a class size of 65 students and an instructor rating of 4.1. He taught PGE 379 twice, with class sizes of 13 and 14 students, and instructor ratings of 4.3 and 4.9, respectively.

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[1] Dr. Foster participated in the University Part-Time Program while working at Sandia. He worked half-time throughout his PhD studies. He was in residence at Purdue during the 2007-08 academic year and returned to full-time status at Sandia after graduating in December 2009.

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Average instructor ratings in PGE for assistant professors teaching undergraduate and graduate courses are 4.17 and 4.19, respectively. Corresponding averages in the Cockrell School of Engineering are 4.17 and 4.34, respectively. Excluding the first time he taught PGE 334, Dr. Foster's instructor ratings in the undergraduate courses are near the departmental average, and his scores for the graduate course are considerably above the departmental average.

A senior faculty conducted a peer review of Dr. Foster's class in April 2016. The evaluator concluded that Dr. Foster was a very good teacher and presented the technical information in a systematic manner that was easy for the students to understand.

Dr. Foster is an innovator in flipping the classroom. He began this approach with a course on high performance computing that he developed at UTSA, and has used this approach in all three of his courses at UT. He displays Powerpoint slides using a tablet computer and he writes directly on the tablet as he lectures. He captures his voice and the annotations in real time. After each class, Dr. Foster divides the recording into four or more segments, and posts the segments on Canvas and/or YouTube for the students to access. These recordings are also used by students outside of UT. For example, the YouTube tutorials that he developed for high performance computing have been viewed more than 230,000 times (corresponding to a total of 800,000 minutes of viewing time).

Research

Dr. Foster's research focuses on computational and experimental mechanics. His main contributions are in three areas: (1) high-strain rate material characterization and modeling, (2) fundamental contributions to the theories and computational methods related to peridynamics and nonlocal modeling, and (3) development of a new class of hydraulic fracture models. At UT, Dr. Foster has articulated a vision of coupling geomechanics into traditional reservoir simulations to efficiently and safely bring unconventional resources into production. This approach is challenging, because introducing geomechanics will greatly increase the complexity and computational expense of these simulations. Highlights of Dr. Foster's research include:

- Seven archival journal papers in rank at UT and 12 in rank at UTSA (career total of 22). Dr. Foster's post-docs are the first author on five of his seven papers in rank at UT. He wrote one paper at UT with his PhD student.
- Ten of his papers in rank at UT and UTSA appear in high-impact journals, including *Computer Methods in Applied Mechanics and Engineering* (IF=3.467), *Communications in Nonlinear Science and Numerical Simulation* (2.834), *Computational Mechanics* (2.639), *Journal of Computational Physics* (2.556), *Computational Material Science* (2.086), and *International Journal of Solids and Structures (2.081)*.
- Dr. Foster is one of four editors of *The Handbook of Peridynamic Modeling*, which will be published by CRC Press in November 2016.
- An h-index of 9 (Google Scholar), with 275 citations.[2]

Dr. Foster has been very successful in securing research funding from external sources. He has been the sole PI on nine external grants and a co-PI on two. Total research funding in rank (at UT and UTSA) is $10.3 million, with his share being $2.4 million. It is important to note that he is a co-PI on a $7.5-million Multidisciplinary University Research Initiatives (MURI) award from the Air

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[2] While working at Sandia, much of Dr. Foster's research was sensitive in nature, and could not be published in the open literature. He did publish internal technical reports at Sandia, but those documents are, by definition, not considered in standard citation measures.

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Force Office of Scientific Research related to predicting material failures using peridynamics modeling. The University of Arizona hosts this center, and the other universities are Nebraska, Columbia, and Arizona State.

Before moving to UT, Dr. Foster received a $1.6-million award with Mukul Sharma (PGE) from the National Energy Technology Laboratory. He has also received research funding from Sandia, the Army Research Laboratory, the Army Research Office, and GE Global Research.

The external letters – and the internal letter from Tinsley Oden (ICES) – highlight the importance of Dr. Foster's research accomplishments, and uniformly support his promotion:

Emmanuel Detournay[3] (Minnesota, NAE) writes, "It is clear, from the reading of these contributions [the five most significant papers] that Dr Foster has significantly contributed to the extension of the original peridynamics paradigm. ... After reading these papers, I very much appreciate the rigor of the approach, as well as the systematic effort of proving that the peridynamic formulation indeed degenerates gracefully to the appropriate classical (local) continuum model." Detournay concludes, "Dr Foster has developed a vibrant research program at Austin. I foresee a bright future for him, with continued excellent contributions to computational mechanics. He has my undeserved [sic] support for his promotion to the position of Associate Professor at the University of Texas at Austin."

Derek Elsworth[4] (Penn State, NAE) states that had never met Dr. Foster, nor read his work before writing this letter of reference. He discusses Dr. Foster's future promise as, "This is probably the strongest portion of his dossier – working at a relatively sophisticated and advanced level in the general area of computational mechanics, and although some of his topical choices are no doubt dictated by his prior (pre-PGE) engagement and interests at Sandia and otherwise, his potential to complete high-quality and profession-leading research is high. His strong mechanics background makes this a straightforward transition – no doubt his ability to ask the important questions in his (new) discipline will evolve with his continuing engagement within his revised research trajectory." Elsworth concludes, "In summary, the candidate has already made significant contributions to the literature in his original area of study (computational mechanics in general with an emphasis on peridynamics and mesh-free methods) and is redefining his research direction in closer alignment with his current position and interests. His success in this is apparent in his awards (AFOSR), funding (which is significant) and in publication in important journals in his field. He is certainly deserving of tenure and promotion in a research-one institution – which I support without reservation."

Armando Duarte[5] (Illinois) began his letter with comments about a recent presentation, "I recall very well his excellent plenary lecture at Eighth International Workshop Meshfree Methods for Partial Differential Equations held in Bonn, Germany, last fall. He presented his work on multi-physics models for hydraulic fracture simulation and also recent fundamental theoretical advancement of the peridynamic theory of porous media fracture. His peridynamic model was, to my knowledge, the first to simulate poroelasticity and fluid-driven fracture propagation. Applications of his method include the simulation of hydraulic fracturing of oil and gas reservoirs."

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[3] Endowed Chair, Department of Civil, Environmental and Geo-Engineering
[4] Professor, Department of Energy and Mineral Engineering
[5] Professor, Department of Civil and Environmental Engineering

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Duarte notes that "Dr. Foster is very comparable in stature and development to the top young computational mechanics faculty at leading universities in the United States." He goes on to compare Dr. Foster favorably to recently promoted faculty at Columbia University, Vanderbilt, and UIUC.

Ahmad Ghassemi[6] (Oklahoma) writes that he does not know Dr. Foster, but he is "familiar with his work and his reputation in the computational aspects of hydraulic fracturing;" "familiar with his work on developments in peridynamics to model fracture propagation in porous media;" and "aware that a number of investigations have used his open-source codes." Further, Ghassemi notes that, "Dr. Foster has established himself as a major player in peridynamics for hydraulic fracturing. He is clearly well recognized for his contributions to numerical methods and computational mechanics and is on track for further professional growth and leadership."

Brad Boyce[7], (Sandia National Laboratories) commented on Dr. Foster's reputation within Sandia, "In spite of John's brief tenure at Sandia, he had already established himself as 'the' internal expert on the application of peridynamics to problems in fracture. While Dr. Stewart Silling invented peridynamic theory at Sandia, it was clear that Stewart deferred to John with regard to how best to apply peridynamics to fracture of ductile metals. ... Moreover, I found John's dual expertise with both computational and experimental methods to be a rare and powerful combination. He is simultaneously quite practical yet steeped in rigorous theory. When John left Sandia several years ago, he left a vacuum of expertise that has been difficult to replicate." Boyce provides an interesting perspective on Dr. Foster's technical capabilities, "What is particularly telling is that at least two of John's major research projects come as a sub-investigator on a much larger effort: in those cases, top professors sought out John's capability as a clear 'rising star'. They risked engaging a new professor at a mid-tier university[8] because they were convinced that John would make a substantial technical contribution."

Lee Chin[9] (ConocoPhillips) notes that "My expertise is in the areas of geomechanics, coupled geomechanics and reservoir simulation, development of computer models and numerical simulators, and numerical modeling. I don't know Dr. John Foster. However, I have been following his technical publications over the past 4 years because of his innovative research work in using peridynamics. Thus, I am familiar with his research on applying peridynamics for solving challenging and important problems associated with solid/fracture mechanics and fluid flow." Chin further states, "In the area of computational mechanics with applications to geomechanics and fracture mechanics, I believe Dr. Foster is one of the best scholars/researchers compared with others in his cohort at research-intensive universities such as Stanford University, Texas A&M University, Colorado School of Mines, University of Oklahoma, and University of Calgary."

Peter Valko[10] (Texas A&M) comments on the technical content of Dr. Foster's papers, "It is a pleasure to read the various suggestions in Dr. Foster's papers, for instance regarding how fracture propagation or Darcy's law are handled in peridynamics. The publications show deep understanding of solid and fluid mechanics as well as abundant creativity." Valko did note that only five of Dr. Foster's publications had been cited 15 or more times, and commented, "This is a reasonable good result considering the author's age but the numbers are somewhat smaller than I

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[6] Endowed Chair, School of Petroleum and Geological Engineering
[7] Distinguished Member of the Technical Staff
[8] Dr. Foster was an assistant professor at UTSA when both of the proposals described by Dr. Boyce were submitted.
[9] Reservoir Engineer Fellow (retired)
[10] Endowed Chair, Department of Petroleum Engineering

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anticipated." This observation does not appear to be a serious concern for Valko, as he has "no doubt that Dr. Foster would be promoted to the ranks of associate professor at any research intensive university."

Tinsley Oden[11] also provided feedback to regarding Dr. Foster's participation in ICES, "I have followed his research closely, heard him lecture on contemporary topics in computational mechanics, geomechanics, materials science, hydraulic fracture and crack propagation, peridynamics, and other subjects. ... I have talked with him at length about deep topics at the forefront of contemporary computational science and engineering. I am fully convinced that he is a truly exceptional academic, a top intellect and expert in his field, a strong and innovative researcher, a dedicated teacher, a trustworthy faculty colleague, and a true, loyal supporter of his department and our university." Oden further notes, "Foster is a person of extraordinary breadth. He is able to work at a very high level in many different areas of engineering. His quite innovative work on modeling hydraulic fracture must stand among the most innovative and important in this area. It demonstrates that he has successfully turned his attention to important problems in petroleum engineering."

As discussed in the introductory remarks, seven people (including two NAE members) declined requests to provide letters for Dr. Foster. Five of the potential reviewers cited a lack of expertise in Dr. Foster's primary area of research and/or other commitments. Two potential reviewers questioned if Dr. Foster belonged in a department of petroleum engineering.

- Stephen Holditch[12] (Texas A&M, NAE) notes, "I know nothing about his specialty and I am not impressed with his publications for most of his career as I do not see how they fit well in Petroleum Engineering."
- Mohamed Soliman[13] (Univ. of Houston) writes that Dr. Foster "is obviously a smart person with excellent publications, however, most of them do not even belong to Petroleum Engineering field."

Advising and Student Mentoring
Dr. Foster graduated one PhD student from UTSA in 2014. The student moved to UT with Dr. Foster and served as a post-doc before moving to the Army Research Laboratory. One post-doc at UTSA also moved to UT with Dr. Foster.

Dr. Foster is currently supervising seven PhD students (two are co-supervised). Three of these students have passed their qualifying exams, but none has graduated. Dr. Foster graduated five MS students at UTSA, and is currently supervising two at UT.

University Service
Dr. Foster serves on several departmental committees (undergraduate studies, graduate admissions, and department awards) and the Cockrell School honors committee.

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[11] Endowed Chair and Director, Institute for Computational Engineering and Sciences
[12] Endowed Chair and Head, Department of Petroleum Engineering
[13] Endowed Chair and Department Chair, Department of Petroleum Engineering

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Professional Service

Dr. Foster is very active in several professional organizations. He helped organize three workshops sponsored by the US Association for Computational Mechanics. He also helped organized eight different symposia, mostly associated with the Computational Mechanics Committee within the American Society of Mechanical Engineers.

Other Evidence of Merit or Recognition

Dr. Foster received an Air Force Young Investigator Award in 2013. To recognize his outstanding and innovative contributions to teaching, he received the Petroleum Engineering Innovative Teaching Award from the Society of Petroleum Engineers in 2015.

Overall Assessment

Dr. Foster is a strong teacher and an innovative researcher. He has successfully secured significant research funding, both as a sole PI and as part of multi-institutional research grants. He is currently supervising a large research group. His publication record over the past five years is strong, but his total number of citations is adversely affected by his limited ability to publish in the open literature while employed at Sandia National Laboratories.

The members of the Promotion and Tenure Committee do not believe that Dr. Foster meets expectations for promotion to associate professor with tenure. They have three primary concerns:

1. Dr. Foster published three papers in journals with modest impact factors since he joined UT.
2. He has not graduated a PhD student from UT. Although one of his PhD students graduated from UTSA, they are concerned that the standards are not the same at the two schools.
3. They were concerned by the large number of potential referees who declined to write letters for Dr. Foster, and in particular, the comments provided by Holditch and Soliman.

Each of these issues is discussed below.

Dr. Foster did publish three papers during the past two years in the journals with modest impact factors: *Physica E: Low-dimensional Systems and Nanostructures* (1.904), *Physica A: Statistical Mechanics and its Applications* (1.785), and ASME *Journal of Applied Mechanics* (1.357). However, during that same period, he published four papers in journals with much higher impact factors. There are many reasons why an assistant professor may choose to publish in a particular journal, and I am not particularly concerned. He has selected a wide variety of journals to publish his work, and I am hopeful that with a little mentoring, he will focus on the more prominent journals in the future.

Dr. Foster has been in residence at UT for two years. Unless a very senior graduate student moved to UT with him, it would not be possible for him to graduate a PhD student in this time period. While at UTSA, Dr. Foster did work with graduate students and post-docs at UT (joint project with Mukul Sharma) and at Northwestern (as a result of the MURI competition, Wing-Kam Liu and Ted Belytschko reached out to collaborate with Dr. Foster). There is every indication that Dr. Foster is an outstanding mentor, and I do not believe that Dr. Foster's promotion should be delayed for several years while he waits for a PhD student to graduate from UT.

Finally, Holditch and Soliman expressed opinions in email correspondence after a cursory review of Dr. Foster's CV. I do not believe that these opinions should be given the same weight as those of the external reviewers who provided detailed assessments. These opinions are also in direct conflict with those of several the reviewers who found very close ties between Dr. Foster's work and

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important topics facing petroleum engineers today and in the future. As noted by Jon Olson, PGE department chair, one of the strengths of the Department of Petroleum and Geosystems Engineering at UT is that many of the faculty did not earn their degrees in petroleum engineering. By recruiting faculty with interests in petroleum engineering, but backgrounds in other areas, the department has a long history of developing unique solutions to the problems facing the oil and gas industry. The department has been extremely successful using this strategy for hiring faculty, and I believe that Dr. Foster will continue this tradition.

In conclusion, I strongly disagree with the members of the Promotion and Tenure Committee. Dr. Foster is a rising star in the areas of experimental and computational mechanics, and I believe that he meets or exceeds expectations for promotion to associate professor with tenure in all areas. I support his case without reservation.

Sharon L. Wood, Dean
21 October 2016

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Statistical Summary for "In Rank"
John T. Foster, Ph.D., P.E.

Metric	Value
Peer-reviewed journal publications (in rank *and total)*	19 / 22
Peer-reviewed conference proceedings (in rank *and total)*	5 / 14
Number of *journal* papers *in rank* with UT (UTSA) students *as co-authors*	3 (4)
Total citations of all publications (career) *from ISI Web of Knowledge*	124
h-index (career) *from ISI Web of Knowledge**	7
Total citations of all publications (career) *from Google Scholar*	261
h-index (career) *from Google Scholar*	9
Total external research funding raised	$10.29M
Total external research funding raised (candidate's share)	$2.4M
Total number of external grants/contracts *awarded*	11
Number of external grants/contracts *awarded* as PI	9
PhD students completed†	1 (1)
MS students completed†	5 (5)
PhD students in pipeline (as of 09/2016) †	6 (5)
MS students in pipeline (as of 09/2016) †	2 (2)
Number of courses taught	6
Total # of students taught in organized courses	363
Average instructor evaluation for UG courses	3.9
Average instructor evaluation for Grad courses	4.5
Average course evaluation for UG courses	3.8
Average course evaluation for Grad courses	4.3
Teaching awards	1
Student organizations advised	3
Undergraduate *researchers* supervised	5
Service on journal editorial boards	0
Number of symposia organized	10

Provide a printout/screen shot of the first page of the report from both ISI Web of Knowledge and Google Scholar

† Count a student as 1.0 if sole supervisor and 0.5 if co-supervised.